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February 12, 1999

**BY HAND DELIVERY**

Ms. Blanca S. Bayo, Director  
Division of Records and Reporting  
Florida Public Service Commission  
2540 Shumard Oak Boulevard  
Tallahassee, Florida 32399-0850

Re: Indianwood Development Corporation  
v. Indiantown Company, Inc.

Dear Ms. Bayo:

Enclosed for filing in the above docket are the original and fifteen (15) copies of Indianwood Development Corporation's Complaint/Petition for Expedited Relief.

We are also submitting the Complaint/Petition on a 3.5" high-density diskette using Microsoft Word 97 format, Rich Text.

Please acknowledge receipt and filing of the above by stamping the duplicate copy of this letter and returning the same to this writer.

Thank you for your assistance in this matter.

Sincerely,

  
J. Jeffrey Wahlen

Enclosures

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REPORTING

990173-W5

DOCUMENT NUMBER-DATE

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FPSC-RECORDS/REPORTING

**BEFORE THE FLORIDA PUBLIC SERVICE COMMISSION**

**INDIANWOOD DEVELOPMENT  
CORPORATION, a Florida  
Corporation,**

**Petitioner,**

**Docket No. 990173-W/S  
Filed: February 12, 1999**

**v.**

**INDIANTOWN COMPANY, INC.,  
a Florida Corporation,**

**Respondent.**

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**COMPLAINT/PETITION FOR EXPEDITED RELIEF**

Pursuant to Rules 25-22.036(5) and (7) and 28-106.201, Florida Administrative Code, Petitioner/Complainant, **INDIANWOOD DEVELOPMENT CORPORATION**, a Florida corporation ("Indianwood"), complains to and petitions the Florida Public Service Commission ("FPSC" or "Commission") as follows for expedited relief against Respondent/Complainee, **INDIANTOWN COMPANY, INC.**, a Florida corporation ("Indiantown" or the "Utility").

1. This complaint is filed because the Utility is willfully refusing to repair and maintain the facilities and equipment that it uses to provide water and wastewater services to Indianwood and the other approximately 500 customers of the Utility located in the Indianwood Mobile Home Park. Specifically, this complaint/petition alleges continuing and willful violations of Sections 367.111(2), Florida Statutes (1997) and Rules 25-10.084 and 25-30.231, Florida Administrative Code.

DOCUMENT NUMBER-DATE  
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FPSC-RECORDS/REPORTING

2. The Commission has jurisdiction over the Utility and the subject matter of this complaint under Sections 367.121(1)(d) and (g), Florida Statutes.

Indianwood

3. Indianwood is a water and wastewater customer of Indiantown, and is the developer of the Indianwood Mobile Home Park in Martin County, Florida ("Park"). Indianwood and approximately 500 other customers within the Park receive water and wastewater service from Indianwood.

4. The name and address of Indianwood are:

Indianwood Development Corp.  
14574 SW Rake Drive  
Indiantown, FL 34956-3648

5. All pleadings, notices, orders and other papers filed or served in this proceeding should be served on Indianwood at both of the following addresses:

J. Jeffrey Wahlen  
Ausley & McMullen  
P. O. Box 391  
Tallahassee, FL 32302

Barnett Robinson, Jr. P.A.  
Suite 319 Atrium-One Boca Place  
2255 Glades Road  
Boca Raton, FL 33431

Indiantown

6. Indiantown is a water and sewer utility holding a certificate of authorization from the Commission. Indiantown is regulated by the FPSC pursuant to Chapter 367, Florida Statutes, and Chapters 25-10 and 25-30, Florida Administrative Code. Indiantown's water and wastewater territory as specified in its certificate of authority includes the Park.

7. The name and address of the Utility are:

Indiantown Company, Inc.  
15925 SW Warfield Blvd.  
P. O. Box 397  
Indiantown, FL 34956

### Substantial Interests

8. The statutes and rules being violated by Indiantown as specified herein were designed to protect the health, safety and welfare of the public, including customers like Indianwood; therefore, Indianwood has a substantial interest in Indiantown's compliance or non-compliance with those statutes and rules. The Utility's willful failure to follow the statutes and rules specified herein harm Indianwood and affect Indianwood's substantial interests by undermining and diminishing the quality of water and wastewater services provided by the Utility to Indianwood and the other customers in the Park. In addition, the Utility's willful failure to follow the specified statutes and rules has harmed the public health, safety and welfare in the Park. Indianwood's substantial interests will be affected by the Commission's determination in this proceeding, because this proceeding will determine whether the Utility will be required to repair and maintain the utility infrastructure [resulting in improved customer service] in the Park to comply with the Commission's statutes and rules.

### Relevant Statutes and Rules

9. Section 367.111(2), Florida Statutes, states:

Each utility shall provide to each person reasonably entitled thereto such safe, efficient, and sufficient service as is prescribed by part VI of chapter 403 and parts I and II of chapter 373, or rules adopted pursuant thereto; but such service shall not be less safe, less efficient, or less sufficient than is consistent with the approved engineering design of the system and the reasonable and proper operation of the utility in the public interest. If the commission finds that a utility has failed to provide its customers with water or wastewater service that meets the standards promulgated by the Department of Environmental Protection<sup>1</sup> ["DEP"] or the water management districts, the commission may reduce the utility's return on equity until the standards are met.

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<sup>1</sup> E.g., Department of Environmental Protection Rule 62-555.350(1), F.A.C., which governs public water systems, requires the supplier of water to "maintain all equipment in good operating condition...."

10. Commission Rule 25-10.084, Florida Administrative Code, states:

Extent of System Which Utility Shall Maintain. Each utility, unless specifically relieved in any case by the Commission from such obligation, shall operate and maintain in safe, efficient and proper condition all of the facilities and equipment used in connection with the distribution, regulation, measurement and delivery of water service to the customer up to and including the point of delivery into the piping owned by the customer.

11. Commission Rule 25-30.231, Florida Administrative Code, states:

Extent of System Which Utility Shall Maintain. Each utility, unless specifically relieved in any case by the Commission from such obligation, shall operate and maintain in safe, efficient and proper condition all of the facilities and equipment used in connection with the collection and regulation of flow of wastewater in the sewer mains and the distribution, regulation, measurement and delivery of water service to the customer up to and including the point of delivery into the piping owned by the customer. The utility may require that each customer shall be responsible for cleaning and maintaining sewer laterals to the service connection.

12. In each of these statutes and rules, the Utility's obligation to maintain facilities and equipment is part and parcel of its obligation to serve and is independent of ownership of the facilities and equipment. Rather, the Utility's obligation to maintain and repair exists by virtue of its certificate of authority from the Commission and the delivery of water service or the collection and regulation of the flow of wastewater in sewer mains using the facilities and equipment.

Some Relevant Facts

13. In June 1998, the engineering firm of Lindahl, Browning, Ferrari & Hellstrom, Inc. issued a report entitled: Indianwood Subdivision Development Observation and Evaluation of Water and Wastewater Facilities. Therein, the engineers memorialized their evaluation of the facilities and equipment used by the Utility to deliver water and wastewater services to

customers in the Park (hereinafter "Utility Infrastructure"). A true and correct copy of that report is attached hereto as Exhibit "A" and is incorporated herein by reference.

14. There is now pending in the Circuit Court in and for Martin County a declaratory action regarding the technical ownership of the Utility Infrastructure. Therein, the Utility, which is using the Utility Infrastructure to serve its customers in the Park, claims that Indianwood owns the Utility Infrastructure. Indianwood claims that the Utility Infrastructure is owned by the Utility.

15. By letter dated January 12, 1999, the Utility advised its customers in the Park, including Indianwood, that it would no longer repair the pipes and lines used by the Utility to provide water and wastewater service in the Park. A true and correct copy of that letter is attached hereto as Exhibit "B" and is incorporated herein by reference.

16. On or about January 25, 1999, a water leak was detected in one of the lines used by the Utility to serve its customers in the Park. The location of the leak was the corner of Fivewood Way and Rake Drive in the Park. Utility personnel dug down at the location on or about January 27, 1999. Ten days later, the area was staked and taped off by Utility personnel, the hole was left open by the Utility, the valve riser casing was left laying on top of the ground and water was leaking into a nearby storm drain. In other words, the Utility abandoned the repairs it commenced.

17. On February 3, 1999, the Utility sent a letter to Indianwood, a true and correct copy of which is attached hereto and incorporated herein by reference as Exhibit "C," demanding payment of money by Indianwood before the Utility makes the necessary repairs. Indianwood's written response to that letter is attached hereto and incorporated herein by reference as Exhibit "D." While Indianwood has objected to the Utility's demands for payment for repairs,

Indianwood has never imposed physical limitations or otherwise prevented the Utility from making whatever repairs the Utility deems necessary in its operation of the water and wastewater systems in the Park.

18. As of shortly before filing this complaint, the water leak described above has not been repaired by the Utility, the hole in the ground remains open and the water continues to leak into the nearby storm drain. Indianwood fears that (a) additional repairs will be needed in the future in and about the Park, (b) the Utility, consistent with its announced intent (see Exhibit "B"), will continue to refuse to make whatever repairs will be necessary, and (c) the timely delivery of safe, efficient and sufficient water and wastewater service in the Park will therefore be in danger, resulting in harm to the public health, safety and welfare in the Park.

19. Although there is a judicial dispute between Indianwood and the Utility regarding ownership of the Utility Infrastructure, the statutes and rules quoted above impose on the Utility as part of its obligation to serve an absolute and continuing duty, **independent of ownership**, to maintain the pipes and lines used by the Utility to provide water and wastewater service in the Park in a safe, efficient and proper condition.

20. As shown in Exhibits "A", "B" and "C", and as alleged herein, the Utility has violated the statutes and rules quoted above by failing to maintain the Utility Infrastructure in the Park in a safe, efficient and proper condition.

21. As shown in Exhibits "A", "B" and "C", and as alleged herein, the Utility has violated the statutes and rules quoted above by failing to operate the facilities in the Park in a manner that is consistent with the reasonable and proper operation of the system in the public interest.

22. As shown in Exhibits "A", "B" and "C", and as alleged herein, the Utility has failed to maintain the water system equipment in the Park in good operating condition in violation of DEP Rule 62-555.350, Florida Administrative Code, thereby violating Section 367.111(2), Florida Statutes, and empowering the FPSC to reduce the Utility's return on equity until it complies with the DEP rules.<sup>2</sup>

23. As shown in Exhibit "B", in which the Utility publicly announced its intent to quit making repairs, the Utility's outrageous refusal to maintain the Utility Infrastructure in a safe, efficient and proper condition and its refusal to operate the Utility Infrastructure in a reasonable and proper manner are knowingly and willful, and result in knowingly and willful violations of the above-cited statutes and rules.

Disputed Issues of Material Fact

24. While Indianwood believes that Exhibits "A", "B" and "C" prove the point, Indianwood expects that whether the Utility has failed to maintain the Utility Infrastructure in a safe, efficient and proper condition will be a disputed issue of material fact. Indianwood reserves the right to identify additional disputed issues of material fact as this proceeding progresses.

WHEREFORE, Indianwood respectfully requests that the Commission grant the following relief:

- A. Find that Indiantown violated and continues to violate Section 367.111(2), Florida Statutes, and Rules 25-10.084 and 25-30.231, Florida Administrative Code.

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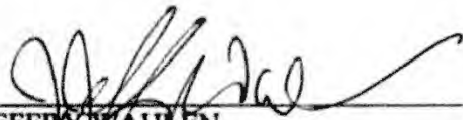
<sup>2</sup> Indianwood believes that discovery will reveal other violations of DEP rules by the Utility, and reserves the right to identify further violations as this proceeding progresses.



- B. Order Indiantown to immediately repair and improve the Utility Infrastructure so that it complies with those statutes and rules pursuant to Section 367.121(1)(d), Florida Statutes.
- C. Impose a penalty of up to \$5,000 per day pursuant to Section 367.161, Florida Statutes.
- D. Pursuant to Section 367.111(2), Florida Statutes, reduce Indiantown's authorized return on equity by 100 basis points until such time as the necessary repairs and improvements have been made.
- E. Grant other such relief against Indiantown as the Commission deems appropriate in the circumstances.

DATED this 12<sup>th</sup> day of February, 1999.

Respectfully submitted,



J. JEFFRY WAHLEN  
JOHN P. FONS  
Ausley & McMullen  
P. O. Box 391  
Tallahassee, FL 32302  
(850) 224-9115



June 22, 1998

LBFH No. 97-0555

Attn: Mr. Lonny Griggs  
Indianwood Property Owners Association  
P. O. Box 335  
Indiantown, Florida 34956

Re: Indiantown Florida - Indianwood Subdivision Development  
Observation & Evaluation of Water and Wastewater Facilities

Dear Mr. Griggs,

Lindahl, Browning, Ferrari & Hellstrom, Inc. (LBFH) have completed their investigation into the integrity of the water and wastewater facilities currently owned and operated by the Indianwood Golf & Country Club.

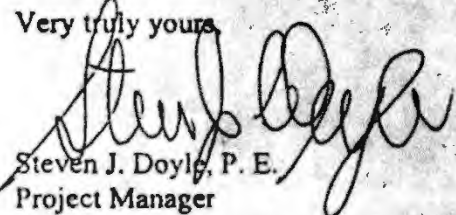
Enclosed for your review is a copy of the engineering evaluation for the housing development known as Indianwood. The report identifies several deficiencies in the water distribution and wastewater collection systems. These deficiencies range from minor to major.

The results of our investigation conclude that substantial deficiencies existing in the system warrant significant consideration. This conclusion is based on our professional judgement and reflects observation and conclusion generated from on-site field observations and measurements.

Copies of the report are currently being forwarded to William Hannah of the Indiantown Company, Inc. for their review.

If you have any questions please let contact our office at (561) 286-3883.

Very truly yours,

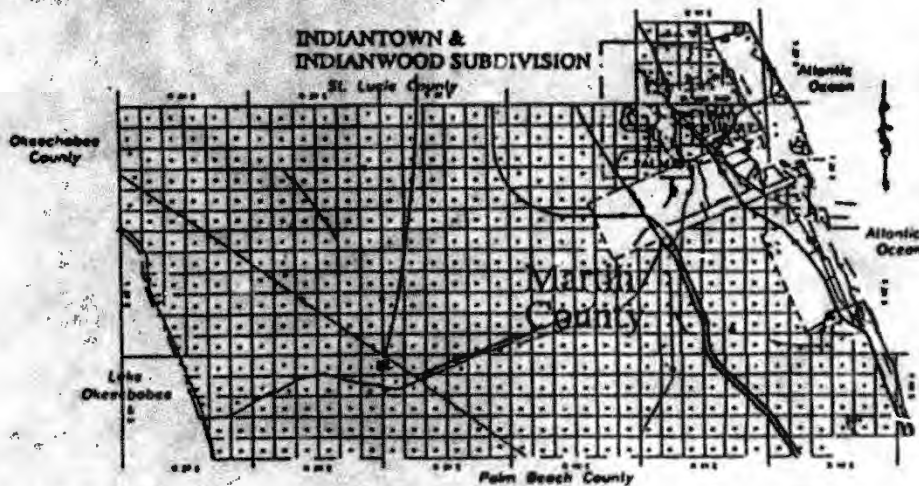
  
Steven J. Doyle, P. E.  
Project Manager

Cc w/ enclosure:

William Hannah, Indiantown Company, Inc.  
James Hewitt, Indiantown Company, Inc.

INDIANTOWN COMPANY/INDIANWOOD  
INDIANTOWN, FLORIDA

INDIANWOOD SUBDIVISION DEVELOPMENT  
OBSERVATION AND EVALUATION  
OF WATER AND  
WASTEWATER FACILITIES



JUNE 1998

PREPARED BY:

LINDAHL, BROWNING, FERRARI & HELLSTROM, INC.  
2400 S.E. MONTEREY ROAD, SUITE 300  
STUART, FLORIDA 34996

Indiantown Company/Indianwood  
Indiantown, Florida

Indianwood Subdivision Development  
Observation and Evaluation of Water and Sewer Facilities

June 1998

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Indiantown Company/Indianwood  
Indiantown, Florida

Indianwood Subdivision Development  
Observation and Evaluation of Water and Sewer Facilities

June 1998

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# INDIANWOOD SUBDIVISION DEVELOPMENT OBSERVATION AND EVALUATION OF WATER AND WASTEWATER FACILITIES

June 16, 1998

## I. INTRODUCTION

The Indianwood subdivision is a community of approximately five hundred and ninety six residential units that lie northeast of Indiantown, Florida, see Figure 1. As with much of Martin County, the residential population is seasonal in nature with the bulk population arriving and staying from late fall to early spring. Residents typically are retirees. Individual residential lots generally measure 50 feet by 100 feet with residential units consisting of prefabricated homes.

Indiantown Company is considering acquisition of the water and sewer utilities of Indianwood. Lindahl, Browning, Ferrari & Hellstrom, Inc., (LBFH) has been retained to conduct a precursor review of the water distribution and wastewater conveyance systems to establish the basic integrity of the system. The purpose of this report is to summarize observations and render an opinion of the overall condition of the subdivision's water and sewer utility system. This evaluation will consist of:

- Review available record drawings for water and wastewater facilities
- Physical field observation of water and wastewater facilities
- Review of system records

The system will be evaluated based on general conformance with minimum design and construction standards established by Indiantown Company, Inc., Martin County, Florida Department of Environmental Protection and best engineering judgement.

## **II. SANITARY SEWER SYSTEM EVALUATION**

### **A. Review of Available Record**

The Indianwood subdivision was built in late 1982 to early 1983. Record drawings of the system are included as Figure 1. A comparison of record drawing (as-built) sewer plans and Indiantown minimum sewer design standards and Florida Department of Environmental Protection (FDEP) criteria is included in Table 1.

Reviews of record drawings indicate that the sewer system generally consists of precast concrete manholes connected by 8-inch PVC pipe at grades of approximately 0.40%. The type of PVC pipe is not specified on the drawings and white PVC pipe was observed at several locations during manhole inspections. Manholes are generally spaced at intervals of 210 feet to 450 feet apart.

Martin County design standards specify gravity sewers to be a minimum of 8-inch on minimum slopes of 0.40%. Sewer pipe should meet ASTM 3034 or SDR 35 (Pipe shall be green in color).

### **B. Manhole Inspections and Evaluations**

Manhole evaluations were made May 5, 1998 between 1:00 p.m. and 3:00 p.m. during dry weather conditions. The inspections were made again on June 3, 1998, during smoke testing, between 8:00 a.m. and 12:00 p.m. Manhole investigations consisted of subjective evaluations of 40 out of approximately 60 subdivision manholes. Evaluation criteria consisted of the following:

1. Manhole cover size
2. Assessment of manhole component deterioration including assessment chimneys, risers, barrels, covers, frames, benches and flow troughs.
3. Pipe penetrations
4. Protective coatings, if applicable
5. Grit buildup
6. Evidence of infiltration
7. Presence of sewer gases

**TABLE I  
REVIEW OF AS-BUILT SEWER PLANS**

Street Name	Minimum Sewer Sewer Pipe Class	Sewer Material	Typical Manhole Separation	Minimum Sewer & Water Separation	Martin Co./Indiantown Minimum Standards	FDEP Criteria
S.W. Divot	8" .004	PVC (1)	220' to 400'	10 ft (2)	Should be Green PVC	Horizontal separation distance between sewers and water main should not be less than 10 feet
Indianwood Circle	8" .004	PVC (1)	240' to 450'	10 ft (2)	Should be Green PVC; Maximum distance between MIF's is 400 ft	Horizontal separation distance between sewers and water main should not be less than 10 feet
Two Wood Way	8" .004	PVC (1)	200' to 400'	10 ft (2)	Should be Green PVC	Horizontal separation distance between sewers and water main should not be less than 10 feet
Four Wood Way	8" .004	PVC (1)	240' to 450'	10 ft (2)	Should be Green PVC; Maximum distance between MIF's is 400 ft	Horizontal separation distance between sewers and water main should not be less than 10 feet
Five Wood Way	8" .004	PVC (1)	240' to 450'	10 ft (2)	Should be Green PVC; Maximum distance between MIF's is 400 ft	Horizontal separation distance between sewers and water main should not be less than 10 feet

**NOTES:**

- (1) Plans call for 8-inch PVC sewer pipe. Type of PVC not specified.
- (2) Plans show 10 foot minimum separation distance.



Each condition was rated based on the following criteria:

- **Severe:** Integrity and/or operation of manhole in jeopardy
- **Moderate:** Will affect integrity and/or operation at manhole if not corrected.
- **Minor:** Problem notable, but not serious at this time
- **None:** Problem not present

The results of the investigations are included in detail in Appendix A and summarized in Tables 2 and 3. The manhole investigations revealed the following:

1. Most manholes were found to be in fair to good shape with minor or no component deterioration, little or no evidence of grit accumulation, and little or no evidence of infiltration. Exceptions observed in the field are noted herein. While some of the manholes appeared to bear evidence of surcharging, sewage flows were observed to be swift and unimpeded with no surcharging at any point.
2. Most manhole chimneys were observed to be in good condition. However, severe deterioration was observed on the chimney of manhole (MH) 23.
3. Risers on all manholes appeared to be in good condition.
4. Manhole barrels on most manholes were observed to be in good condition. Minor deterioration was noted for MHs 2, 15, 33A and 42. Severe deterioration was noted for MH 41.
5. Most manhole frames and covers appeared to be fabricated of cast iron as manufactured by Vulcan, type V-1344-1. Most covers were observed to be in fair to good condition. A few covers could not be opened
6. Most manhole cast iron frames were observed to be in fair to good condition. However, the frame on MH 54 included a split type, bolt together, expansion type

**TABLE 2  
MANHOLE DATA**

Road	Manhole Number	Downstream Sewer Inch	Flow Line Above Invert Inch	Estimated Grit Depth Inch	Surcharged Manhole	Pavement Type
S.W. Divot Drive	2	8	1" to 3"	N/A	No	Asphalt
S.W. Divot Drive	7B	8	1" to 3"	N/A	No	Asphalt
S.W. Divot Drive	1	8	1" to 3"	N/A	No	Asphalt
S.W. Divot Drive	6	8	1" to 3"	N/A	No	Asphalt
Rake Drive	18	8	1" to 3"	N/A	No	Asphalt
Indianwood Circle	54	8	1" to 3"	Minor 1"±	No	Asphalt
Indianwood Circle	52	8	1" to 3"	N/A	No	Asphalt
Indianwood Circle	33	8	1" to 3"	Minor 2"±	No	Asphalt
Golf Club Drive	33A	8	1" to 3"	N/A	No	Asphalt
Sand Wedge Drive	34	8	1" to 3"	N/A	No	Asphalt
Indianwood Circle	38	8	1" to 3"	Minor 1/4"±	No	Asphalt
Sand Wedge Drive	35	8	1" to 3"	N/A	No	Asphalt
Golf Club Drive	41	8	1" to 3"	N/A	No	Asphalt
Indianwood Circle	22	8	5" to 6"	N/A	No	Asphalt
Indianwood Circle	23	8	1" to 3"	N/A	No	Asphalt
Rake Drive	12	8	1" to 3"	N/A	No	Asphalt
Four Wood Way	8	8	1" to 3"	N/A	No	Asphalt
Fourwood & Rake	15	8	1" to 3"	N/A	No	Asphalt
Four Wood Way	32	8	1" to 3"	N/A	No	Asphalt
Four Wood Way	31	8	1" to 3"	N/A	No	Asphalt
Five Wood Way	48	8	1" to 3"	N/A	No	Asphalt
Five Wood Way	42	8	1" to 3"	N/A	No	Asphalt
Five Wood Way	49	8	1" to 3"	N/A	No	Asphalt
Five Wood Way	50	8	1" to 3"	N/A	No	Asphalt

**NOTES:**

(1) N/A = Not applicable (no accumulation at time of observation)

**TABLE 3  
SUMMARY OF MANHOLE EVALUATION**

Road	Manhole Cover		Manhole Component Deterioration							Grit Buildup	Evidence of Infiltration	Odiferous Gases	
	Manhole	Size Inches	Chimney	Riser	Barrel	Cover	Frame	Bench	Trough				
S.W. Divot Drive	2	22	None	None	Minor	None	None	None	None	None	None	None	Minor
S.W. Divot Drive	7B	22	None	None	None	None	None	None	None	None	None	Minor	None
S.W. Divot Drive	1	22	None	None	None	None	None	None	None	None	None	None	None
S.W. Divot Drive	6	22	None	None	None	None	None	None	None	None	None	None	None
Rake Drive	18	22	None	None	None	None	None	None	None	None	None	None	None
Indianwood Circle	54	22	None	None	None	None	None	None	Minor	None	Minor	None	Minor
Indianwood Circle	52	22	None	None	None	None	Inadequate Extension Ring	None	None	None	None	None	Moderate
Indianwood Circle	33	22	None	None	None	None	None	None	None	None	Minor	None	Moderate
Golf Club Drive	33A	22	None	None	Minor	None	None	None	None	None	None	None	None
Sand Wedge Drive	34	22	None	None	None	None	None	None	None	None	None	None	None
Indianwood Circle	38	22	None	None	None	None	None	None	None	None	Minor	None	None
Sand Wedge Drive	35	22	None	None	None	None	None	None	None	None	None	None	Moderate
Golf Club Drive	41	22	None	None	Severe	None	None	None	None	None	None	Moderate	Heavy
Indianwood Circle	22	22	None	None	None	None	None	None	None	None	None	None	None
Indianwood Circle	23	22	Heavy	None	None	None	None	Minor	None	None	None	None	Heavy
Rake Drive	12	22	None	None	None	None	None	None	None	None	None	None	None
Four Wood Way	8	22	None	None	None	None	None	None	None	None	None	None	None
Fourwood & Rake	15	22	None	None	Minor	None	None	None	None	None	None	None	None
Four Wood Way	32	22	None	None	None	None	None	None	None	None	None	None	None
Four Wood Way	31	22	None	None	None	None	None	None	None	None	None	None	Moderate
Five Wood Way	48	22	None	None	None	None	None	None	None	None	None	Minor	None
Five Wood Way	42	22	None	None	Minor	None	None	None	None	None	None	None	Heavy
Five Wood Way	49	22	None	None	None	None	None	None	None	None	None	Severe From Rim	None
Five Wood Way	50	22	None	None	None	None	None	None	None	None	None	Severe From Rim	None

extension ring. This ring type showed signs of deterioration and should be replaced. The frame on MH 23 appear has some minor corrosion as well.

7. The benches on most manholes were inspected to be in fair to good condition. The bench on MH 54 was observed to have some minor corrosion.
8. During smoke testing of the gravity sewer between MHs 52 to 57 a direct house-to-manhole connection was observed at MH 53. An extension of the service lateral from the house on lot 22 on S. W. Indianwood Circle penetrates the manhole wall several feet below grade and then makes a right angle turn to drop several feet to the flow line of the manhole. At the flow line it makes another right angle turn to discharge towards the manhole downstream exit. The pipe appears to rest directly on the flow trough invert. A debris "dam" was observed upstream of the lateral pipe which had to be cleared before the line could be smoke tested.
9. All flow troughs were observed to be in good shape.
10. Grit buildup was not observed in most manholes with only minor accumulation observed in MHs 33, 38 and 54
11. None of the manholes were observed to have infiltration at the time of inspections. Water marks suggested minor infiltration in MH 7B, 41, 48 and several other manholes. Evidence of severe infiltration from the rim was observed for manholes 49 and 50.
12. Sewer gases were evident in several manholes including 2, 31, 33, 35, 52 and 54. A high concentration of sewer gas was evident at manholes 41 and 42.

### C. Sewage Lift Station Inspections and Evaluations

Evaluation of Lift Station No. 1 (LS #1) was made May 5, 1998, the same day as the manhole evaluations. Lift Station No. 2 (LS #2) was evaluated May 26, 1998. Evaluations are based on Indiantown, Martin County and FDEP minimum design criteria. Criteria are summarized as follows:

#### Summary of Minimum Design Criteria for Lift Stations

Component	Martin County
Type of Station	<ul style="list-style-type: none"> <li>• Below ground with submersible pumps</li> </ul>
Pumps	<ul style="list-style-type: none"> <li>• Two pumps with each pump able to move peak flow</li> <li>• Impellers able to pass 3-inch solids</li> <li>• Non-overloading across entire curve</li> </ul>
Controls	<ul style="list-style-type: none"> <li>• Enclosure to be fabricated of 316 stainless steel</li> <li>• Controls to automatically alternate pumps</li> <li>• Audio High Level alarm</li> <li>• Visible red warning light</li> <li>• Lightning arrestors</li> <li>• Main power disconnect between power pole and panel</li> </ul>
Valves and Piping	<ul style="list-style-type: none"> <li>• Gate valve on discharge line of each pump</li> <li>• Check valve required between gate valve and pump</li> <li>• Pump by-pass</li> <li>• Valves to be located outside the wet well in a separate pit</li> </ul>
Wetwell	<ul style="list-style-type: none"> <li>• Minimum of 6-feet in diameter,</li> <li>• Sized for minimum pump cycle of 10 minutes</li> <li>• Floor slope to be minimum of 1:1 to intake</li> <li>• Fabricated of precast Class II, 3,500 psi concrete,</li> <li>• Inside and outside of wetwell coated with Koppers Bitumastic or eq.</li> </ul>
Power Supply	<ul style="list-style-type: none"> <li>• Standby power receptacles and phase monitors</li> <li>• Receptacles shall be as manufactured by Russell and Stoll or equal</li> </ul>
Enclosures	<ul style="list-style-type: none"> <li>• Lift stations to be surrounded by a 6-foot high, chain link, vinyl coated fence</li> <li>• Gates: swing type to be 12 foot wide</li> <li>• Easement or deed required</li> <li>• Fenced area to be laid with ¾ inch stone</li> </ul>

In addition to the above criteria, the stations were also inspected for the following:

- Corrosion damage to concrete and pumping equipment and ancillary components
- Condition of control panel and control circuitry
- Leaks
- Loose Hardware

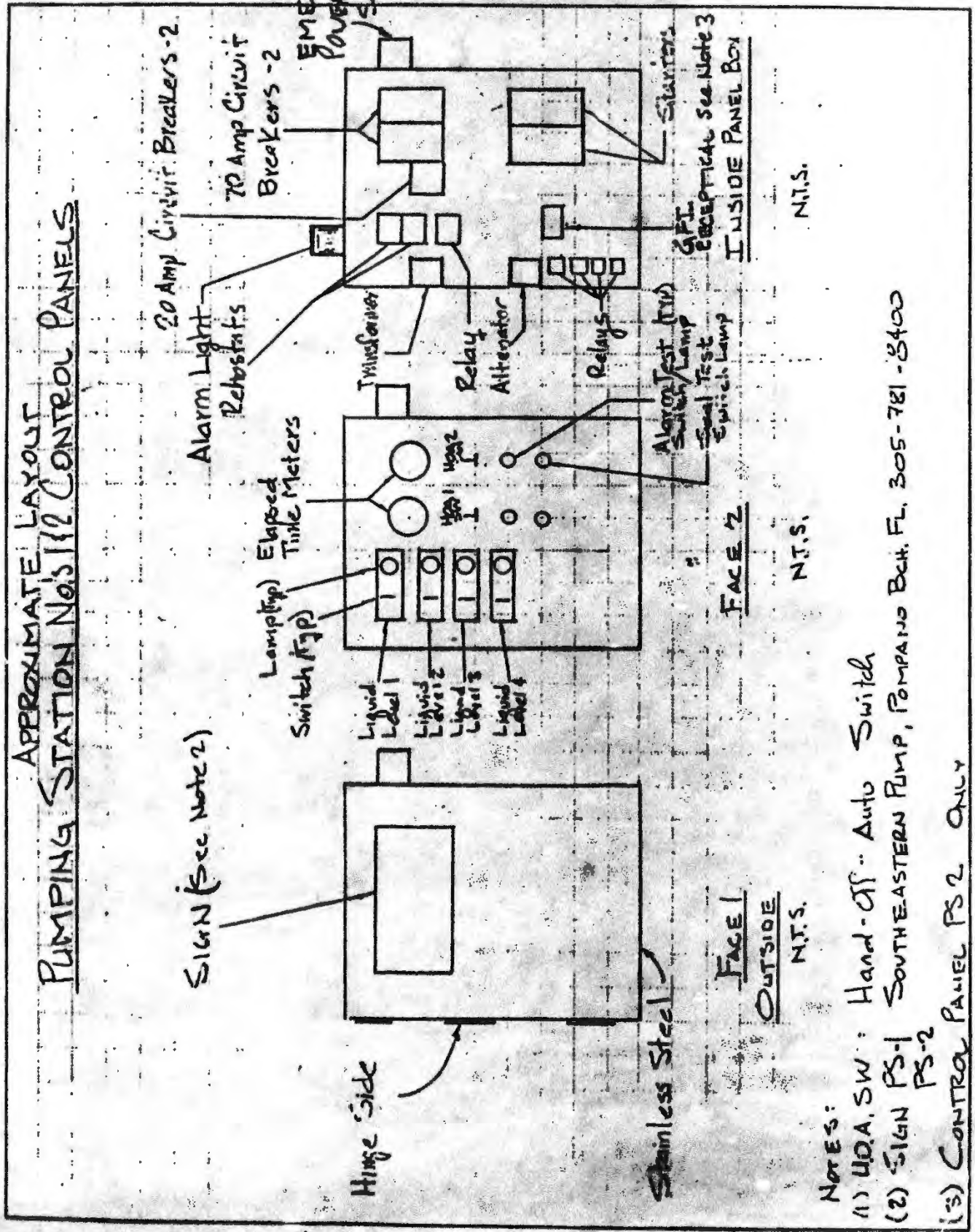
- Exercise Pumps
- Exercise Valves
- Electrical Meter Inspections

Detailed results of the LS #1 and LS #2 evaluations are included in Appendix A and summarized in Tables 4, 5 and 6 and summarized as follows:

**Summary of Evaluations for Lift Stations 1 and 2**

Standard	Lift Station # 1	Lift Station # 2
Type and Pumps	Wet pit type with two pumps. Pump size, flow characteristics and solids handling ability are unknown.	Wet pit type with two pumps. Pump size, flow characteristics and solids handling ability are unknown.
Controls	The panel is fabricated of stainless steel and the outside appears to be in good condition. The inside of the panel is in poor condition, see sketch Figure 2. The alternator and transformer appear to be inoperable. Control wiring showed scorch marks from a previous starter malfunction. The panel was corroded in the vicinity of the electrical conduit connection. Conduit and wiring entering the panel did not include sealing compound. During the inspection pump No. 2 turned on and appeared to be operating.	Panel is fabricated of stainless steel. Inside and outside of panel appears to be in good condition. Control equipment and wiring appear to be in satisfactory condition. Equipment status indicating lamps mounted on the inside face are inoperable. Conduit and wiring entering the panel did not include sealing compound.
Valves & Piping	Valves and piping appeared to be located in a valve vault. However the vault was locked and an inspection was not possible. The station does not have an above ground by-pass line with valves.	Valves and piping appeared to be located in a valve vault. However the vault was locked and an inspection was not possible. The station does not have an above ground by-pass line with valves.
Wet Wells	The wet well appeared to be at least six feet inside diameter. No information was available at the time of inspection on minimum pump cycle time, floor slope, and inside/outside coatings.	The wet well appeared to be at least six feet inside diameter. No information was available at the time of inspection on minimum pump cycle time, floor slope, and inside/outside coatings.
Power Supply	Power supply is metered. The panel does not have a standby power receptacle.	Power supply is metered. The panel has a standby power receptacle
Enclosures	The station is located on an open, grass covered area surrounded by rose bushes. A fence does not surround the station. The station appears to be off residential property. However, specific easement or deed information is not known at this time.	The station is located on an open, grass-covered area and is not surrounded by a fence. The station appears to be off residential property. However, specific easement or deed information is not known at this time.

APPROXIMATE LAYOUT  
PUMPING STATION No. 1 (2) CONTROL PANELS



NTS.

NTS.

NTS.

NOTES:

- (1) UDA, SW: Hand-Off - Auto Switch
- (2) SIGN PS-1 SOUTHEASTERN PUMP, POMPANO BEACH, FL. 305-781-8400  
 PS-2
- (3) CONTROL PANEL PS 2 ONLY

**TABLE 4**  
**LIFT STATION No. 1 INSPECTION DATA**

**Date of Inspection:** May 3, 1998

**Time of Inspection:** 3:00 p.m. to 4:00 p.m.

**Name of Owner:** Indianwood Subdivision

**Owner's Address:** Indianwood Subdivision, Indiantown Florida

**Lift Station Location:** Indianwood Subdivis. w

**Inspector's Name:** RMS/SJD

**1. Corrosion Damage:** Inspect metal parts, pump pit barrel

**Remarks:** Cover plates/access doors appear to be in good condition. Concrete wet pit barrel and cover appear to be in good condition. Guide rails and lifting chain appear in good condition. The stainless steel control panel appears to show some corrosion.

**2. Leaks:** Inspect control panel door seals; electrical conduit seals to control panel and pump pit

**Remarks:** The general condition of control panel structure and panel contents is poor. The panel itself is corroding. The conduit connection does not have seal material. Without seal material gasses from the wet pit are able to migrate into the control box. Transformer and alternator may not be in working order. Existing wiring shows scorch marks from a previous starter malfunction. Earlier this year the starters were replaced and the pump motors were rebuilt. Maintenance personnel indicated that previous similar repair may have been made only two years prior. The panel shows evidence of lightning strikes or electrical explosions, or high voltage arcing. Panel does not contain a dehumidifier.

**NOTE:** the panel does not have a generator receptical.

**3. Loose Hardware:** Test bolts nuts, other miscellaneous hardware, control panel latches

**Remarks:** None Observable

**4. Component Lubrication:** Lubricate hinges, latches and locks

**Remarks:** Not applicable

**5. Pump Tests:** Check Pumps, Check control panel pilot lights, test alarm horn

**Remarks:** Pump No. 2 operated during inspection. Control panel pilot light operated, alarm test horn was inoperable. Generally, operation of the controls for LS 1 is unreliable.

**6. Exercise Valves:** Exercise force main valves

**Remarks:** Vault locked shut and was not inspected.

**7. Inspect/Record Water Meter**

**Remarks:** Not applicable

**8. Inspect/Record Electrical Meter Reading**

**Remarks:** Meter No.'s: 5794106 & CZL014694106DF

**9. Inspect RTU Panel:** Hinges, pilot lights, leaks, mounting hardware, seals, conduit & wire

**Remarks:** Not applicable, no RTU.



**TABLE 5**  
**LIFT STATION No. 2 INSPECTION DATA**

---

**Date of Inspection:** May 24, 1998

**Time of Inspection:** 1:30 to 3:00 PM

**Name of Owner:** Indianwood Subdivision

**Owner's Address:**

**Lift Station Location:** Indianwood Subdivision

**Inspector's Name:** RMS/SJD/DF

**1. Corrosion Damages:** Inspect metal parts, pump pit barrel

**Remarks:** Cover plates/access doors appear to be in good condition. Concrete wet pit barrel and cover appear to be in good condition. Guide rails appear to be in good condition. The lifting chain appears to have minor corrosion. The stainless steel control panel appears to show minor corrosion outside around hasp handle. No corrosion was found inside the panel.

**2. Leaks:** Inspect control panel door seals, electrical conduit seals to control panel and pump pit

**Remarks:** General condition of control panel is good. Corrosion is apparent around the connection between the hasp handle and the panel door. The conduit connections do not have seal material. Without seal material gasses from the wet pit are able to migrate into the control box. Equipment status indicator lamps appear to not be

**3. Loose Hardware:** Test bolts nuts, other miscellaneous hardware, control panel latches

**Remarks:** None Observable

**4. Component Lubrication:** Lubricate hinges, latches and locks

**Remarks:** Not applicable

**5. Pump Tests:** Check Pumps, Check control panel pilot lights, test alarm horns

**Remarks:** Pump No. 2 operated during inspection. Control panel pilot light operated, alarm test horn was not tested.

**6. Exercise Valves:** Exercise force main valves, water valves

**Remarks:** Vault locked shut and was not inspected.

**7. Inspect/Record Water Meter**

**Remarks:** Not applicable

**8. Inspect/Record Electrical Meter Reading**

**Remarks:** Meter No.'s: 72802986

**9. Inspect RTU Panel:** Hinges, pilot lights, leaks, mounting hardware, seals, conduit & wire

**Remarks:** Not applicable, no RTU.

Wet well volumes for Lift Station #1 and #2 were analyzed with respect to pump starts per hour. The purpose of this analysis is to verify that the number of starts per hour for each lift station is less than 6, the general pump industry maximum starts per hour allowable for pump motors. The Indianwood conveyance system is arranged such that discharge flows from Lift Station #2 are re-pumped from Lift Station #1. Average daily design flows are based on Indiantown and Martin County standards of 100 gallons per capita per day, with peak design flows for laterals equal to 4 times average daily flows, (ADF) and 2.5 times ADF for trunk sewers. The results of the analysis are presented in Table 7 and summarized as follows:

**Summary of Wet Well Volume Analysis**

Description	Lift Station #1	Lift Station #2
Storage Volume Available - Gallons	463	478
Volume Required for Average Flow - Gallons	207	77
Volume Required for Peak Flow - Gallons	517	192

Based on design information and field measurements, during average flow periods Lift Station #1 and #2 have adequate storage volume to sustain less than 6 starts per hours. During peak flow periods Lift Station #2 is of sufficient volume to handle maximum anticipated flows. However, Lift Station #1 does not have sufficient volume to maintain less than 6 starts per hour. It is recommended that a more detailed review of wetwell operating levels and pump operating characteristics be made of Lift Station #1.

#### D. Results of Smoke Testing

Smoke test investigation of the Indianwood sewer system was conducted June 2, 1998 from 8:00 a.m. to 12:00 p.m. under sunny and dry weather conditions. Testing was conducted by representatives of Indiantown Company, Inc., the Florida Rural Water Association, and Lindahl, Browning, Ferrari & Hellstrom, Inc. The following sanitary manholes were evaluated during the smoke test:

#### Summary of Smoke Tested Sanitary Sewer

Indianwood Street Name	Manhole Numbers	Sewer Length-Ft
Indianwood Circle	MH 21, 22, 23	700 LF
Indianwood Circle	MH 51, 52, 53, 54	730 LF
Indianwood Circle	MH 55, 56, 57	1,340 LF
Indianwood Circle	MH 2, 3, 4, 5, 6	1,300 LF
Four Wood Way	MH 15, 31, 32	900 LF
	Total:	4,970 LF

Discussions with Indiantown Company staff indicated that several temporary field drains were thought to still be connected to the sewer system. Other manholes were selected at random for testing. Examination of residential and street storm drain systems during the smoke tests did not reveal any illegal connections to the sanitary sewer system. Only one site was found that may be a potential source of inflow and that was a single lateral stub out to an empty lot, adjacent to address 16129 Indianwood Circle, near MH 53. Based on the limited smoke testing performed the Indianwood sewer system appears to be tight with few to no visual evidence of leakage.

## E. Summary

The Indianwood manhole and gravity sewer and manhole network appears to be tight and in good condition. Smoke testing did not reveal any sources of inflow and/or illegal storm water connection. The materials of construction for the gravity pipe system appear to be PVC and may not conform to current standards of DR 35, green PVC pipe. Minimum pipe size is 8-inch and slope is approximately 0.4% which conforms to current Martin County standards.

A non-standard connection has been made between a house lateral from lot 22 of SW Indianwood Circle to MH 53. The connection is a significant obstruction to wastewater flows. To comply with current sanitary sewer design standards this connection must be modified so that it is no longer an obstruction.

The Indiantown lift stations generally do not conform to current standards. Lift Station #1 appears to have inadequate wetwell volume for anticipated flow quantities. Wetwell and pumping equipment for Lift Station #2 appears to be of adequate size to meet design sanitary flows. By-pass piping and valves appear to be lacking. By-pass piping and valves should be a part of every station design and should be accessible from grade.

Lift station control panels are in fair to poor condition. Replacement of the panels would likely be required to bring stations into conformance. The existing stations are not secured. The site should be surrounded by fencing and covered with ¾-inch stone aggregate for maintenance.

### III. WATER DISTRIBUTION SYSTEM EVALUATION

#### A. Review of Record Drawings

Record drawings of the water system are included as Figure 3. A comparison of record drawing (as-built) system plans, Martin County and Indiantown minimum water system design standards, and FDEP criteria is included in Table 8.

#### B. Appurtenance Inspection and Evaluation

The Indianwood water distribution system was inspected and evaluated May 26, 1998. Criteria used in the evaluations, is based on Martin County and Indiantown Company minimum design standards and is summarized as follows:

##### Summary of Water System Criteria

Component	Indiantown Standards
Minimum Cover	<ul style="list-style-type: none"><li>• Mains 2 to 10 inches in diameter: 30 inches of cover</li></ul>
Horizontal Separation	<ul style="list-style-type: none"><li>• Parallel water/sewer mains 10 feet outside to outside</li></ul>
Vertical Separation	<ul style="list-style-type: none"><li>• 18 inches outside of water main to outside of sewer</li></ul>
Layout	<ul style="list-style-type: none"><li>• No fire hydrants on dead ends</li><li>• Water mains located in right-of-way</li></ul>
Water Mains 4 to 12 Inches Inside Diameter	<ul style="list-style-type: none"><li>• If PVC mains should be Class 150 &amp; DR-118 and conform to AWWA C 900.</li><li>• If DIP mains should be Class 50 with a working pressure of 150 psi</li></ul>
Water Main Size	<ul style="list-style-type: none"><li>• Usually should be 6 inches inside diameter</li></ul>
Valves <12 inches	<ul style="list-style-type: none"><li>• Fabricated of cast iron</li><li>• Valves arranged to isolate the system</li></ul>
Fire Hydrants	<ul style="list-style-type: none"><li>• Conform to AWWA C502</li></ul>

Detailed results of the water system evaluation are included in Appendix B and summarized in Table 8. Generally, the water system components observed during the field visit did not meet minimum standards.

foundations, porches, dwelling units, carports, etc. Several thousands feet of water main may be relocated and/or replaced to permit proper and safe maintenance of the water distribution system. Refer to Table 8 and Figure 3 for further detail.

### C. Meter Vault Inspections and Evaluations

Indianwood receives all of its water from an 8-inch main located on the south side of the subdivision. A meter vault adjacent to SE Indianwood Drive meters all water delivered to the subdivision. The installation includes a below grade, inline meter installed in an open concrete vault surrounded by a six-foot chain-link fence. The vault is open and does not include a cover. The meter can be isolated by two 8-inch gate valves. Flow can be provided around the meter via by-pass piping and valves located inside the vault. Isolation and bypass valves were not tested.

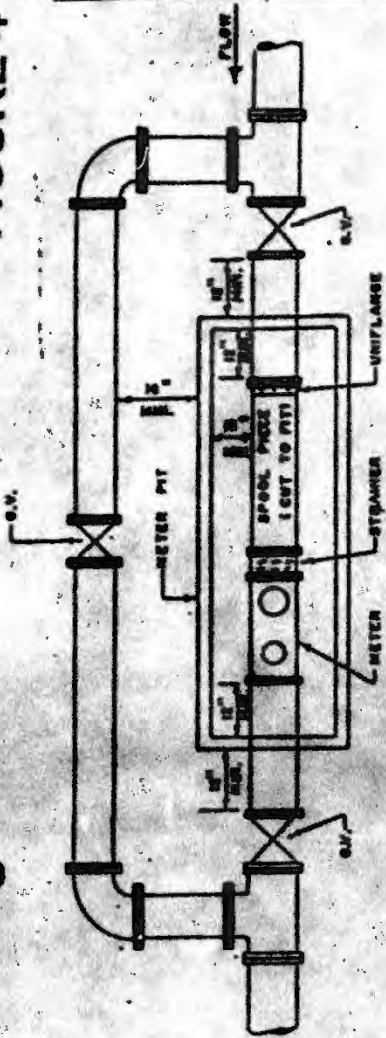
Current meter vault standards are shown in Figure 4. The existing meter vault does not comply with current standards.

## **D. Summary**

The Indianwood water distribution system generally does not meet current standards. Some of the noted deficiencies in the system are bulleted below. A substantial portion of the system has been investigated to draw the conclusion presented below. The results of our investigation conclude that substantial deficiencies existing in the system to warrant consideration. This conclusion is based on our professional judgement and reflects observation and conclusion generated from on-site field observations and measurements.

- **Missing isolation valves and/or valves not exposed during field inspection.**
- **Valve boxes with concrete collars were not extended to finished grade.**
- **Fire hydrants not accessible for emergency vehicles.**
- **Portions of the water service line material of construction (polybutylene) have been disapproved for further use by FDEP & EPA.**
- **Meter boxes exposed thereby making it a tripping hazard. Meter boxes constructed of plastic are subject to floatation during a storm water event.**
- **Lack of back flow prevention devices for lawn irrigation connections.**
- **Inadequate depth of cover over the top of pipe.**
- **Mains located extremely close to building foundations and surface structures.**
- **Excessive landscaping and streetscaping over water line, prohibiting safe Operation and maintenance.**

FIGURE 4

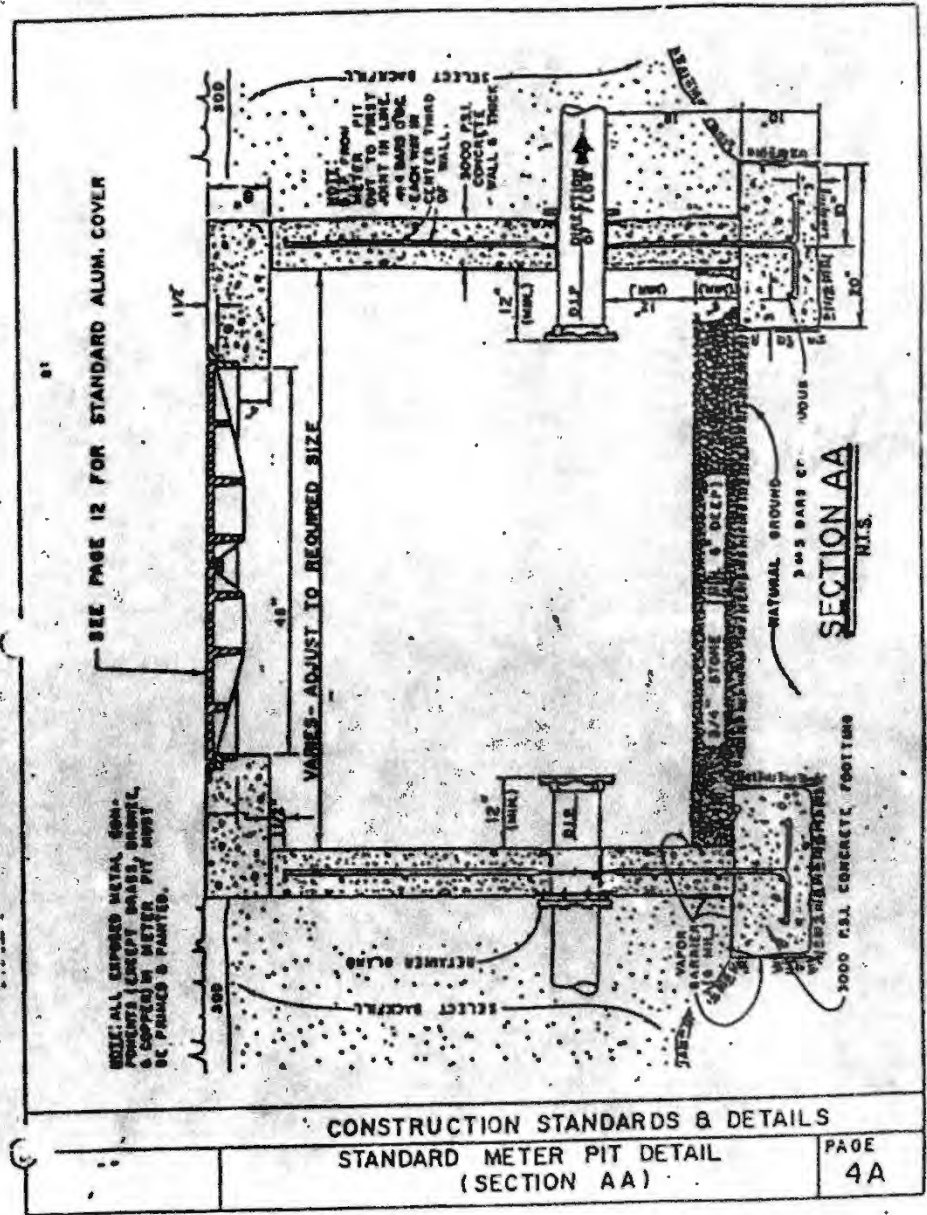


- NOTES:
1. ALL PIPE SHALL BE FLANGED.
  2. BYPASS MAY BE PLACED INSIDE OF METER PIT.
  3. SEE SHEET A FOR METER PIT DETAIL.

CONSTRUCTION STANDARDS & DETAILS

TYPICAL METER ASSEMBLY  
(4" OR LARGER)

PAGE  
3c



CONSTRUCTION STANDARDS & DETAILS

STANDARD METER PIT DETAIL  
(SECTION AA)

PAGE  
4A



#### IV. RECORD DATA AND SERVICE CALL REVIEW

The Indianwood subdivision is located in Martin County within Indiantown limits. Inquiries were made with several government agencies with respect to record of construction or regulatory compliance issues. Agencies contacted include:

- Martin County Building Department
- Martin County Health Department
- Florida Department of Environmental Protection
- Indiantown Company, Inc.

Martin County Building Department: Review of Martin County Building Department construction records show that after Phase I of the subdivision was constructed the original developer defaulted. Martin County took over the bid process for Phases II through IV. Review of file information did not reveal any County or residential comments with respect to design or installation of the sewer system. Storm drainage problems, however, were noted as a chronic problem from 1987 to 1994.

Martin County Health Department: The Martin County Health Department was contacted regarding Indianwood. The Health Department annually inspects two above ground fuel storage tanks that serve the Golf Course Clubhouse for compliance with state regulations. Currently the tanks are considered in compliance.

Florida Department of Environmental Protection: The Florida Department of Environmental Protection, (DEP) regarding Indianwood. DEP monitors the Clubhouse water treatment system for compliance with State regulation. Currently the clubhouse water and wastewater treatment systems are in compliance. DEP stated they do not inspect or review the Indianwood water or wastewater piping system.

Indiantown Company, Inc.: Indiantown Company was contacted regarding Indianwood subdivision water and sewer utilities. The Indiantown Company as certified by the engineer-of-record accepted construction plans for Indianwood. Indiantown staff has reported several repairs

to the wastewater lift station as well as several water service lines to residential dwelling units. Most of the water service line replacements were as a result of deteriorating polybutylene service lines. The water lines are located too close to private (residential) property.

## V. SUMMARY AND RECOMMENDATIONS

Existing water and sewer utilities serving the Indianwood subdivision are, generally, in working order. Review of County and DEP records did not reveal any complaints of inadequate water or sewer service. However, deficiencies noted during field observations of the water and sewer system, lead to the conclusion that the Indianwood utilities do not meet current Indiantown or Martin County design standards. To bring both systems into conformance with current standards the following minimum upgrades are required:

### Sanitary Sewer Collection System

- Replacement of pumping station control panels
- Addition of bypass piping and valves at each station
- Addition of perimeter fencing and stone at each lift station site
- Easements for all wastewater components
- Reconnect non-standard lateral connections to conform with Martin County standards

In addition to the above, a property search should be made to ensure the lift stations are not located on private property. Property transfer may be required based on results from the search. Lift Station #1 wetwell operating levels and pump characteristics should be reviewed in detailed to verify that they are of sufficient size to accommodate average daily and peak hour flows.

### Water Distribution System

- Relocate water mains located adjacent to structures and landscaped residential lawns onto accessible right-of-way.
- Determine if polybutylene service line are used in the system and replace
- Relocated hydrant assemblies
- Provide backflow prevention devices on all irrigation lines
- Upgrade the existing meter vaults to conform to current standards

In addition to the above, a property search should be made to ensure the meter vaults and other water appurtenances are not located adjacent to private property, which would impede maintenance of the system. Property transfer may be required based on results from the search.

The necessary improvements to the system would require replacement of portion of the water distribution system and a complete upgrade of the wastewater transfer pump system instrumentation & controls. Based on the observations of this precursory investigation, acquisition of Indianwood Development Water Utility system should not be considered at this time, however the acquisition of the wastewater system should be considered upon replacement and repair of the noted deficiencies.

**Indianwood Company, Inc. Indianwood  
Indianwood, Florida**

**Indianwood Subdivision Development,  
Observation And Evaluation Of Water And Sewer Facilities**

**Appendix A**

**Sewer System Evaluation Data Sheets**

**June 1998**

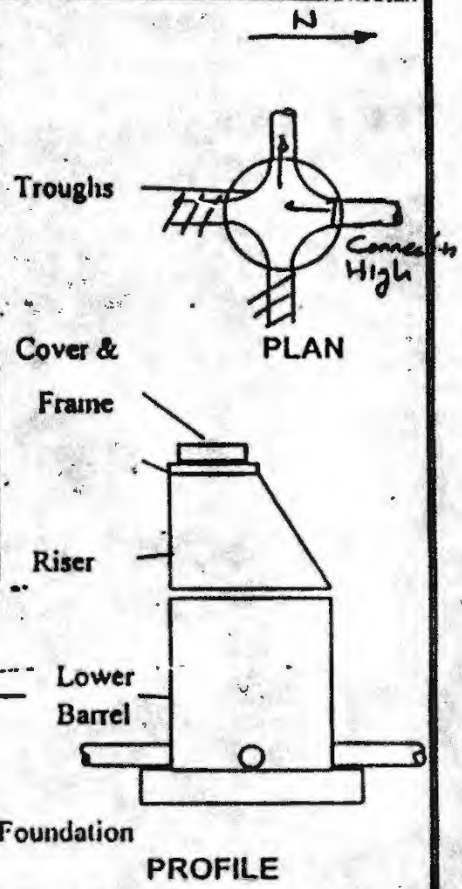
**Prepared By  
Lindahl, Browning, Ferrari & Hellstrom Inc.  
2400 SE Monterey Rd., Suite 300  
Stuart, FL 34996**

# MANHOLE INSPECTION FORM

## INDIANWOOD SUBDIVISION, INDIANTOWN FLORIDA

City Indiantown | Location Indianwood Sub. | Inspection by: RMS/SJD  
 Date: May 5, 1998 | Day: Tuesday | Time: 1:00 AM/PM  
 Location: MH 7B | Zone: \_\_\_\_\_  
 Inspector: RMS/SJD | Weather: Clear & Hot | Temp: 80° F

Item	Construction Material	Condition
COVER	Cast Iron (Vulcan Y-1344-I Type)	Good
FRAME	Cast Iron	Good
CHIMNEY	Brick and Mortor	Good
STEPS	None	
CORBEL WORK	None	
RISER WALLS	Concrete	Good
BARREL WALLS	Concrete	Good
BENCH	Concrete	Good
TROUGHS	Concrete	Good



**Manhole Cover:**  
 No. of Holes 0 | Size of Holes: 0  
 Depth of Manhole: 99" +/-  
 Depth To High Water Mark: 3" From Invert  
 Depth To Ground Water: None Observed  
 Unaccounted Connections: None Observed  
 Evidence of Leakage: Barrel Seams  
 Other Comments Flush Type Manhole

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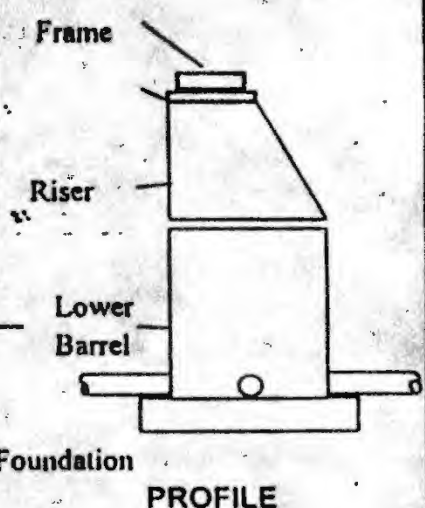
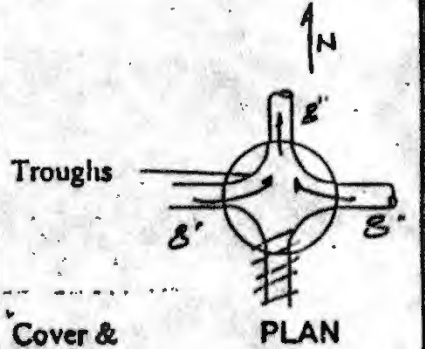
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# MANHOLE INSPECTION FORM INDIANWOOD SUBDIVISION, INDIANTOWN FLORIDA

City: <u>Indiantown</u>	Location: <u>Indianwood Sub.</u>	Inspection by: <u>RMS/SJD</u>	
Date: <u>May 5, 1998</u>	Day: <u>Tuesday</u>	Time: <u>1:00</u>	<u>AM/PM</u>

Location: _____	MH No. <u>2</u>	Zone: _____
Inspector: <u>RMS/SJD</u>	Weather: <u>Clear &amp; Hot</u>	Temp: <u>80° F</u>

Item	Construction Material	Condition
COVER	Cast Iron (Vulcan Y-1344-I Type)	Good
FRAME	Cast Iron	Good
CHIMNEY	Brick and Mortar	Good
STEPS	None	
CORBEL WORK	None	
RISER WALLS	Concrete	Good
BARREL WALLS	Concrete	Good
BENCH	Concrete	Good
TROUGHS	Concrete	Good



**Manhole Cover:**  
 No. of Holes 0                      Size of Holes: 0

Depth of Manhole: 82" +/-

Depth To High Water Mark: None Observed

Depth To Ground Water: None Observed

Unaccounted Connections: None Observed

Evidence of Leakage: None Observed

Other Comments Minor corrosion at lower barrel.

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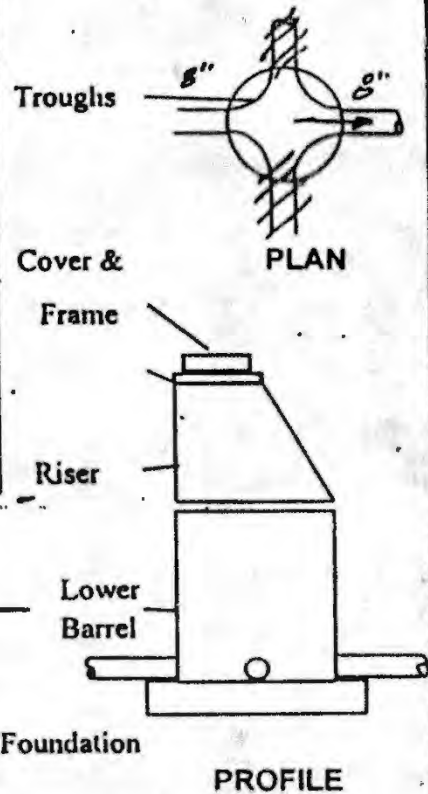
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# MANHOLE INSPECTION FORM

## INDIANWOOD SUBDIVISION, INDIANTOWN FLORIDA

City: Indiantown	Location: Indianwood Sub.	Inspection by: RMS/SJD	
Date: May 5, 1998	Day: Tuesday	Time: 1:00	AM/PM
Location:	MH No. 1	Zone:	
Inspector:	RMS/SJD	Weather: Clear & Hot	Temp: 80° F

Item	Construction Material	Condition
COVER	Cast Iron (Vulcan Y-1344-I Type)	Good
FRAME	Cast Iron	Good
CHIMNEY	Brick and Mortar	Good
STEPS	None	
CORBEL WORK	None	
RISER WALLS	Concrete	Good
BARREL WALLS	Concrete	Good
BENCH	Concrete	Good
TROUGHS	Concrete	Good



**Manhole Cover:**  
 No. of Holes: 0      Size of Holes: 0

Depth of Manhole: 44" +/-

Depth To High Water Mark: None Observed

Depth To Ground Water: None Observed

Unaccounted Connections: None Observed

Evidence of Leakage: None Observed

**Other Comments**

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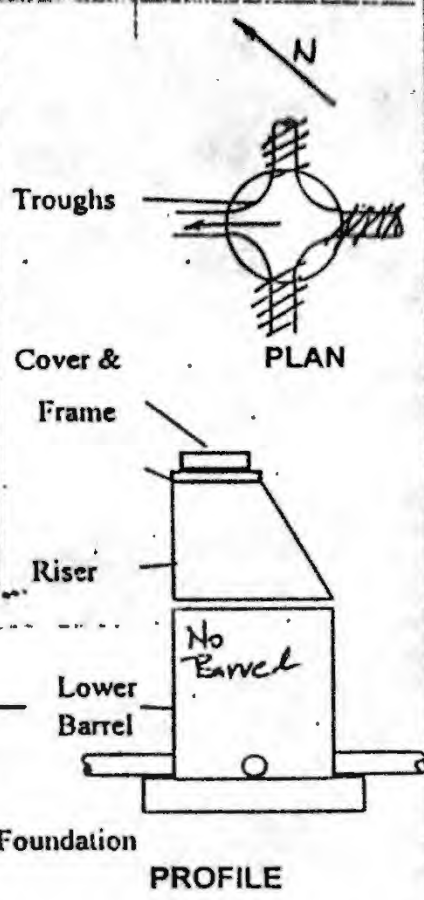


# MANHOLE INSPECTION FORM

## INDIANWOOD SUBDIVISION, INDIANTOWN FLORIDA

City: <b>Indiantown</b>	Location: <b>Indianwood Sub.</b>	Inspection by: <b>RMS/SJD</b>	
Date: <b>May 5, 1998</b>	Day: <b>Tuesday</b>	Time: <b>1:00</b>	<b>AM/PM</b>
Location: <b>MH6 Flush Type</b>		Zone:	
Inspector: <b>RMS/SJD</b>		Weather: <b>Clear &amp; Hot</b>	Temp: <b>80° F</b>

Item	Construction Material	Condition
COVER	Cast Iron (Vulcan Y-1344-I Type)	Good
FRAME	Cast Iron	Good
CHIMNEY	Brick and Mortar	Good
STEPS	None	
CORBEL WORK	None	
RISER WALLS	Concrete	Good
BARREL WALLS	Concrete	Good
BENCH	Concrete	Good
TROUGHS	Concrete	Good



**Manhole Cover:**  
 No. of Holes: 0      Size of Holes: 0

Depth of Manhole: 31"

Depth To High Water Mark: 3" From Invert

Depth To Ground Water: None Observed

Unaccounted Connections: None Observed

Evidence of Leakage: None Observed

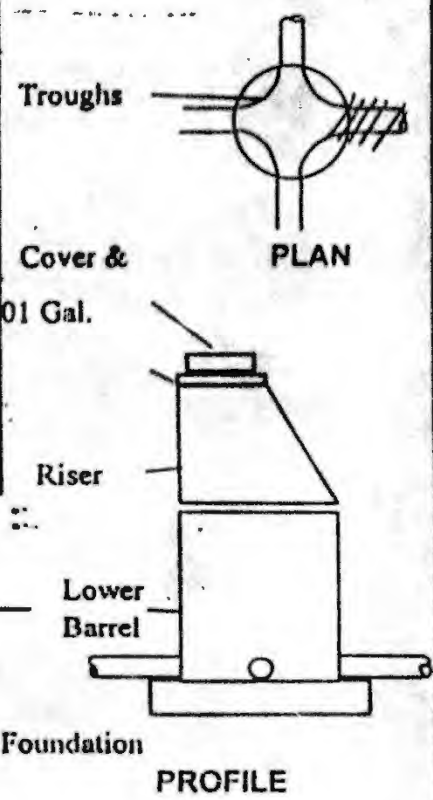
**Other Comments**  
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 \_\_\_\_\_  
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 \_\_\_\_\_

# MANHOLE INSPECTION FORM

## INDIANWOOD SUBDIVISION, INDIANTOWN FLORIDA

City: <u>Indiantown</u>	Location: <u>Indianwood Sub.</u>	Inspection by: <u>RMS/SJD</u>	
Date: <u>May 5, 1998</u>	Day: <u>Tuesday</u>	Time: <u>1:00</u>	<u>AM/PM</u>
Location: <u>MH No. 18</u>	Zone: _____		
Inspector: <u>RMS/SJD</u>	Weather: <u>Clear &amp; Hot</u>	Temp: <u>80° F</u>	

Item	Construction Material	Condition
COVER	Cast Iron (Vulcan Y-1344-I Type)	Good
FRAME	Cast Iron	Good
CHIMNEY	Brick and Mortar	Good
STEPS	None	
CORBEL WORK	None	
RISER WALLS	Concrete	Minor Infiltration < 01 Gal.
BARREL WALLS	Concrete	Good
BENCH	Concrete	Good
TROUGHS	Concrete	Good



Manhole Cover:  
 No. of Holes 0                      Size of Holes: 0

Depth of Manhole: 39" +/-

Depth To High Water Mark: None Observed

Depth To Ground Water: None Observed

Unaccounted Connections: None Observed

Evidence of Leakage: None Observed

Other Comments

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# MANHOLE INSPECTION FORM

## INDIANWOOD SUBDIVISION, INDIANTOWN FLORIDA

City Indiantown    Location Indianwood Sub.    Inspection by: RMS/SJD  
 Date: May 5, 1998    Day: Tuesday    Time: 1:00    AM/PM

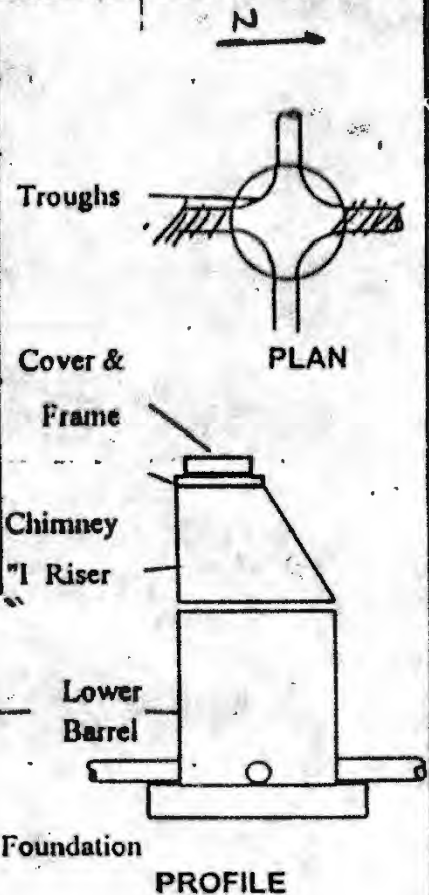
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Location:                      MH No. 54                      Zone:

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Inspector:                      RMS/SJD                      Weather: Clear & Hot                      Temp: 80° F

Item	Construction Material	Condition
COVER	Cast Iron (Vulcan Y-1344-I Type)	Good
FRAME	Cast Iron	Good
CHIMNEY	Brick and Mortar	Minor Corrosion
STEPS	None	
CORBEL WORK	None	
RISER WALLS	Concrete	Good
BARREL WALLS	Concrete	Good
BENCH	Concrete	Minor Corrosion
TROUGHS	Concrete	Grit Accumulation



Manhole Cover:  
 No. of Holes 0                      Size of Holes: 0

Depth of Manhole: 75" +/-

Depth To High Water Mark: None Observed

Depth To Ground Water: None Observed

Unaccounted Connections: None Observed

Evidence of Leakage: None Observed

Other Comments                      Minor corrosion of trough and bench.  
    Grit accumulation in trough 1" +/-.

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# MANHOLE INSPECTION FOR INDIANWOOD SUBDIVISION, INDIANTOWN FLORIDA

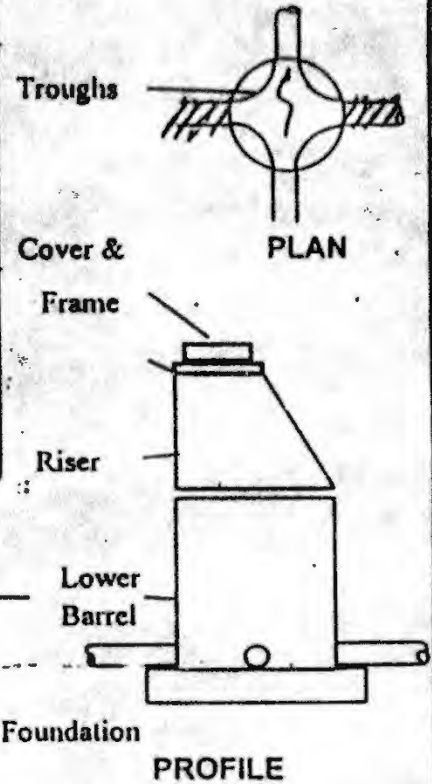
City Indiantown Location Indianwood Sub. Inspection by: RMS/SJD

Date: May 5, 1998 Day: Tuesday Time: 1:00 AM/PM

Location: MH No. 52 Zone:

Inspector: RMS/SJD Weather: Clear & Hot Temp: 80° F

Item	Construction Material	Condition
COVER	Cast Iron	Good
FRAME	Cast Iron	Good
CHIMNEY	Brick and Mortar	Good
STEPS	None	
CORBEL WORK	None	
RISER WALLS	Concrete	Good
BARREL WALLS	Concrete	Good
BENCH	Concrete	Good
TROUGHS	Concrete	Good



**Manhole Cover:**

No. of Holes 0 Size of Holes: 0

Depth of Manhole: 111" +/-

Depth To High Water Mark: None Observed

Depth To Ground Water: None Observed

Unaccounted Connections: None Observed

Evidence of Leakage: None Observed

Other Comments Extension Ring Inadequate

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# MANHOLE INSPECTION FORM INDIANWOOD SUBDIVISION, INDIANTOWN FLORIDA

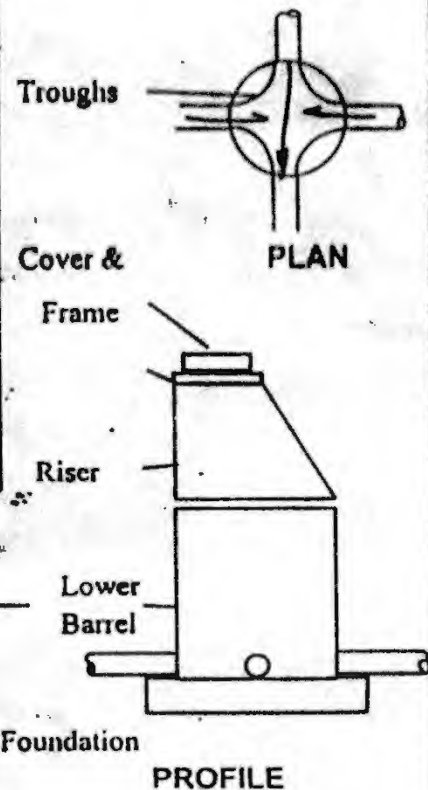
City: Indiantown | Location: Indianwood Sub. | Inspection by: RMS/SJD

Date: May 5, 1998 | Day: Tuesday | Time: 1:00 AM/PM

Location: MH 48 | Zone: \_\_\_\_\_

Inspector: RMS/SJD | Weather: Clear & Hot | Temp: 80° F

Item	Construction Material	Condition
COVER	Cast Iron (Vulcan Y-1344-I Type)	Good
FRAME	Cast Iron	Good
CHIMNEY	Brick and Mortar	Good
STEPS	None	
CORBEL WORK	None	
RISER WALLS	Concrete	Good
BARREL WALLS	Concrete	Good
BENCH	Concrete	Good
TROUGHS	Concrete	Good



Manhole Cover:  
No. of Holes: 0 | Size of Holes: 0

Depth of Manhole: 85" +/-

Depth To High Water Mark: None Observed

Depth To Ground Water: None Observed

Unaccounted Connections: None Observed

Evidence of Leakage: Minor Leakage at Floor

Other Comments  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

**MANHOLE INSPECTION FORM**  
**INDIANWOOD SUBDIVISION, INDIANTOWN FLORIDA**

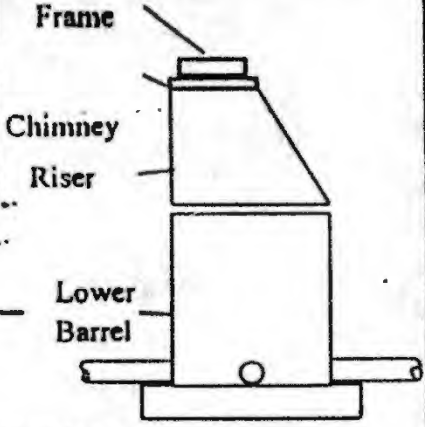
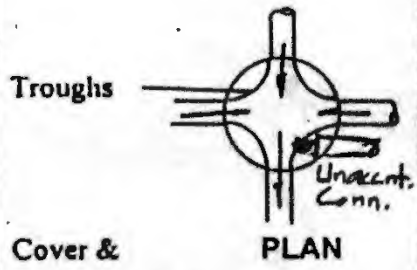
City Indiantown Location Indianwood Sub. Inspection by: RMS/SJD

Date: May 5, 1998 Day: Tuesday Time: 1:00 AM/PM

Location: MH 33 Zone: \_\_\_\_\_

Inspector: RMS/SJD Weather: Clear & Hot Temp: 80° F

Item	Construction Material	Condition
COVER	Cast Iron (Vulcan Y-1344-I Type)	Good
FRAME	Cast Iron	Good
CHIMNEY	Brick and Mortar	Good
STEPS	None	
CORBEL WORK	None	
RISER WALLS	Concrete	Good
BARREL WALLS	Concrete	Good
BENCH	Concrete	Good
TROUGHS	Concrete	Good



Manhole Cover:  
 No. of Holes 0 Size of Holes: 0

Depth of Manhole: 164" +/-

Depth To High Water Mark: 3' +/- From Invert

Depth To Ground Water: None Observed

Unaccounted Connections: One

Evidence of Leakage: None Observed

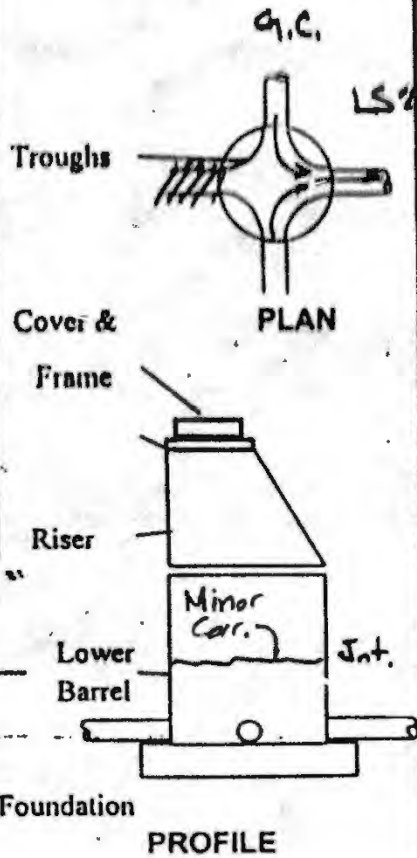
Other Comments Feeds L.S. #2  
Grit Accumulation +/- 1" - 2"  
Some Grease

# MANHOLE INSPECTION FORM

## INDIANWOOD SUBDIVISION, INDIANTOWN FLORIDA

City: Indiantown	Location: Indianwood Sub.	Inspection by: RMS/SJD	
Date: May 5, 1998	Day: Tuesday	Time: 1:00	AM/PM
Location: MH 33A	Zone:		
Inspector: RMS/SJD	Weather: Clear & Hot	Temp: 80° F	

Item	Construction Material	Condition
COVER	CAST IRON (VULCAN Y-1344-I Type)	Good
FRAME	Cast Iron	Good
CHIMNEY	Brick and Mortar	Good
STEPS	None	
CORBEL WORK	None	
RISER WALLS	Concrete	Good
BARREL WALLS	Concrete	Good
BENCH	Concrete	Good
TROUGHS	Concrete	Good



Manhole Cover:  
 No. of Holes: 0      Size of Holes: 0

Depth of Manhole: 172" +/-

Depth To High Water Mark: 6' to 5' From Invert

Depth To Ground Water: None Observed

Unaccounted Connections: None Observed

Evidence of Leakage: None Observed

Other Comments: Minor corrosion at joint or lower barrel.

**INDIANWOOD SUBDIVISION, INDIANTOWN, FLORIDA**

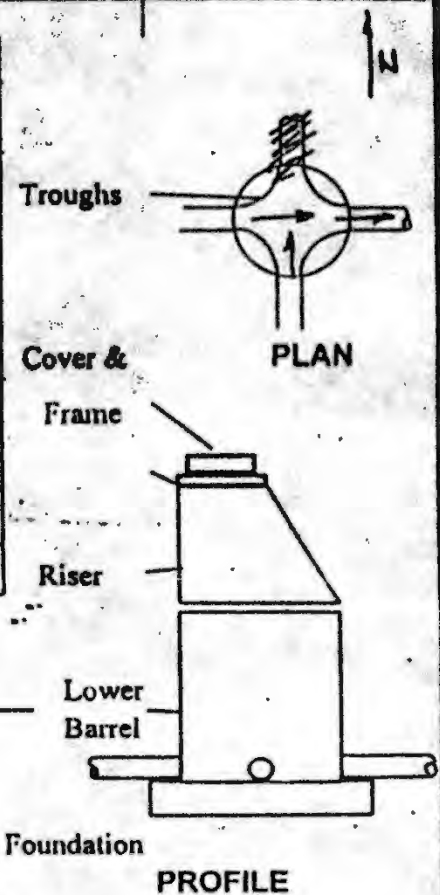
City Indiantown Location Indianwood Sub. Inspection by: RMS/SJD

Date: May 5, 1998 Day: Tuesday Time: 1:00 AM/PM

Location: MH 34 @ Sand Wedge Zone: \_\_\_\_\_

Inspector: RMS/SJD Weather: Clear & Hot Temp: 80° F

Item	Construction Material	Condition
COVER	Cast Iron (Vulcan Y-1344-I Type)	Good
FRAME	Cast Iron	Good
CHIMNEY	Brick and Mortar	Good
STEPS	None	
CORBEL WORK	None	
RISER WALLS	Concrete	Good
BARREL WALLS	Concrete	Good
BENCH	Concrete	Good
TROUGHS	Concrete	Good



**Manhole Cover:**

No. of Holes 0 Size of Holes: 0

Depth of Manhole: 111" +/-

Depth To High Water Mark: None Observed

Depth To Ground Water: None Observed

Unaccounted Connections: None Observed

Evidence of Leakage: None Observed

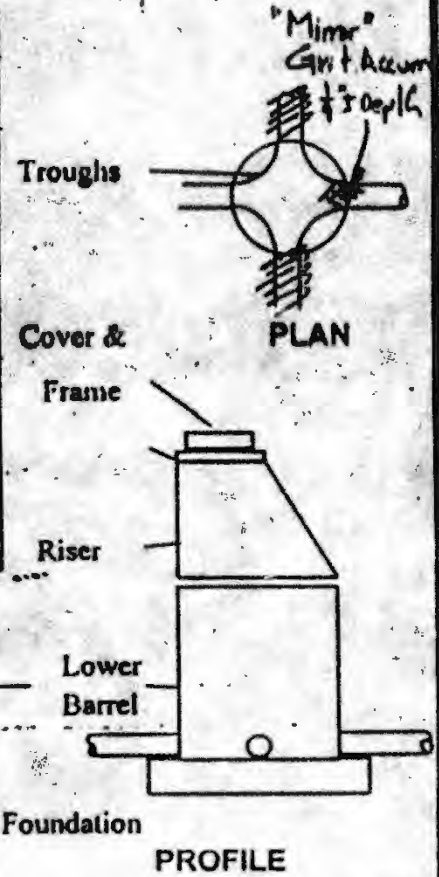
Other Comments Uncoated inside; concrete bench missing.



# MANHOLE INSPECTION FOR INDIANWOOD SUBDIVISION, INDIANTOWN FLORIDA

City: Indiantown	Location: Indianwood Sub.	Inspection by: RMS/SJD	
Date: May 5, 1998	Day: Tuesday	Time: 1:00	AM/PM
Location: MH 38	Zone:		
Inspector: RMS/SJD	Weather: Clear & Hot	Temp: 80° F	

Item	Construction Material	Condition
COVER	Cast Iron (Vulcan Y-1344-I Type)	Good
FRAME	Cast Iron	Good
CHIMNEY	Brick and Mortar	Good
STEPS	None	
CORBEL WORK	None	
RISER WALLS	Concrete	Good
BARREL WALLS	Concrete	Good
BENCH	Concrete	Good
TROUGHS	Concrete	Good



**Manhole Cover:**  
 No. of Holes: 0      Size of Holes: 0

Depth of Manhole: 98" +/-

Depth To High Water Mark: None Observed

Depth To Ground Water: None Observed

Unaccounted Connections: None Observed

Evidence of Leakage: None Observed

Other Comments: Minor grit accumulation.

# MANHOLE INSPECTION FORM

## INDIANWOOD SUBDIVISION, INDIANTOWN FLORIDA

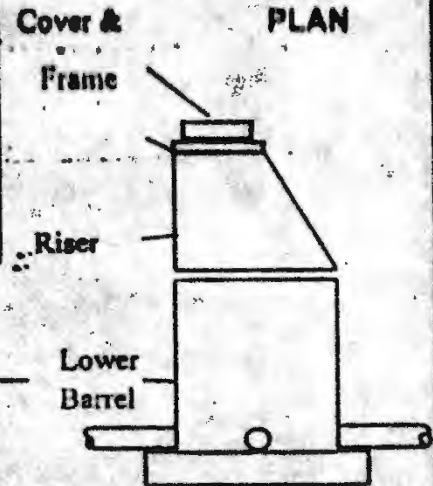
City Indiantown Location Indianwood Sub. Inspection by: RMS/SJD

Date: May 3, 1998 Day: Tuesday Time: 1:00 AM/PM

Location: MH 35 @ Sandwedge Zone:

Inspector: RMS/SJD Weather: Clear & Hot Temp: 80° F

Item	Construction Material	Condition
COVER	Cast Iron (YUKON Y-1344-I Type)	Good
FRAME	Cast Iron	Good
CHIMNEY	Brick and Mortar	Good
STEPS	None	
CORBEL WORK	None	
RISER WALLS	Concrete	Good
BARREL WALLS	Concrete	Good
BENCH	Concrete	Good
TROUGHS	Concrete	Good



Manhole Cover: No. of Holes 0 Size of Holes: 0

Depth of Manhole: 81" +/-

Depth To High Water Mark: None Observed

Depth To Ground Water: None Observed

Unaccounted Connections: None Observed

Evidence of Leakage: None Observed

Other Comments No inside coating.  
Minor grease blockage upstream side.

# MANHOLE INSPECTION FORM INDIANWOOD SUBDIVISION, INDIANTOWN FLORIDA

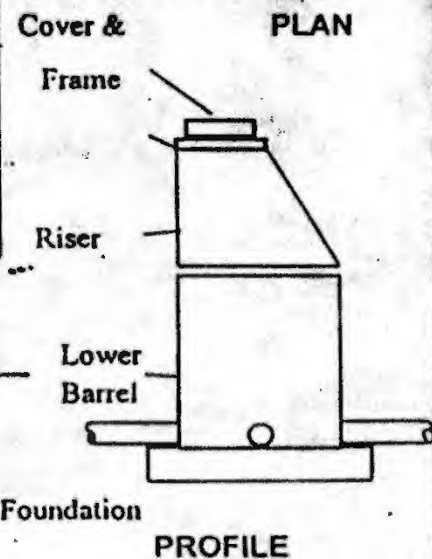
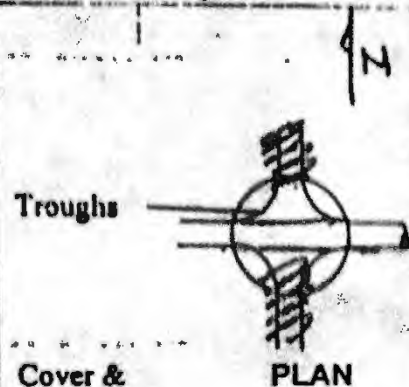
City: Indiantown Location: Indianwood Sub. Inspection by: RMS/SJD

Date: May 5, 1998 Day: Tuesday Time: 2:23 AM/PM

Location: MH 31 Zone: \_\_\_\_\_

Inspector: RMS/SJD Weather: Clear & Hot Temp: 80° F

Item	Construction Material	Condition
COVER	Cast Iron (Vulcan Y-1344-I Type)	Good
FRAME	Cast Iron	Good
CHIMNEY	Brick and Mortar	Good
STEPS	None	
CORBEL WORK	None	
RISER WALLS	Concrete	Good
BARREL WALLS	Concrete	Good
BENCH	Concrete	Good
TROUGHES	Concrete	Good



Manhole Cover:  
No. of Holes: 0 Size of Holes: 0

Depth of Manhole: 72" +/-

Depth To High Water Mark: None Observed

Depth To Ground Water: None Observed

Unaccounted Connections: None Observed

Evidence of Leakage: None Observed

Other Comments: Good Condition  
Minor Grease Accumulation at Invert of Manhole

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

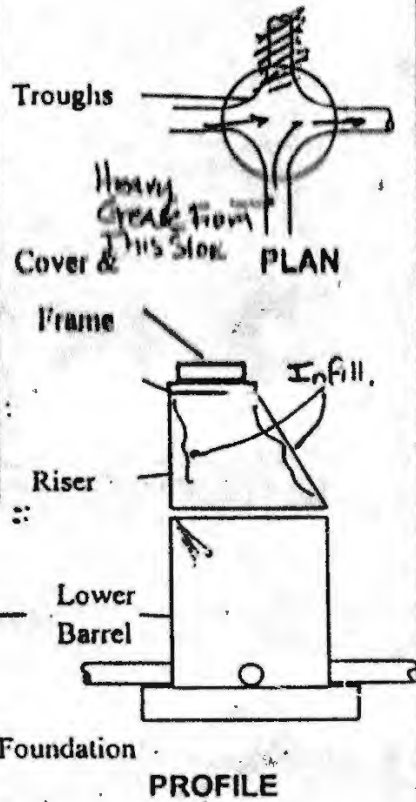
# MANHOLE INSPECTION FORM

## INDIANWOOD SUBDIVISION, INDIANTOWN FLORIDA

City Indiantown Location Indianwood Sub. Inspection by: RMS/SJD  
 Date: May 5, 1998 Day: Tuesday Time: 1:00 AM/PM

Location: MH 41 Zone: \_\_\_\_\_  
 Inspector: RMS/SJD Weather: Clear & Hot Temp: 80° F

Item	Construction Material	Condition
COVER	Cast Iron (Vulcan Y-1344-1 Type)	Good
FRAME	Cast Iron	Good
CHIMNEY	Brick and Mortar	Good
STEPS	None	
CORBEL WORK	None	
RISER WALLS	Concrete	Good
BARREL WALLS	Concrete	Good
BENCH	Concrete	Good
TROUGHS	Concrete	Good



Manhole Cover: \_\_\_\_\_  
 No. of Holes 0 Size of Holes: 0

Depth of Manhole: 138" +/-

Depth To High Water Mark: None Observed

Depth To Ground Water: None Observed

Unaccounted Connections: None Observed

Evidence of Leakage: None Observed

Other Comments Ground Meter Infiltration.  
Severe Upper Barrel Corrosion  
Heavy Grease Upstream

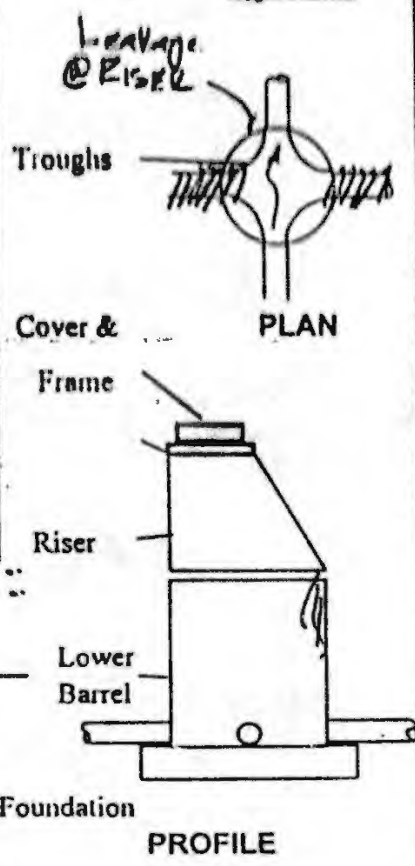
# MANHOLE INSPECTION FORM

## INDIANWOOD SUBDIVISION, INDIANTOWN FLORIDA

City Indiantown Location Indianwood Sub. Inspection by: RMS/SJD  
 Date: May 5, 1998 Day: Tuesday Time: 1:00 AM/PM

Location: MH 22 Zone: \_\_\_\_\_  
 Inspector: RMS/SJD Weather: Clear & Hot Temp: 80° F

Item	Construction Material	Condition
COVER	Cast Iron (VULCAN Y-1344-I Type)	Good
FRAME	Cast Iron	Good
CHIMNEY	Brick and Mortar	Good
STEPS	None	
CORBEL WORK	None	
RISER WALLS	Concrete	Good
BARREL WALLS	Concrete	Good
BENCH	Concrete	Good
TROUGHS	Concrete	Good



Manhole Cover:  
 No. of Holes 0 Size of Holes: 0

Depth of Manhole: 90" +/-

Depth To High Water Mark: (None Evident Despite High Flow)

Depth To Ground Water: None Observed

Unaccounted Connections: None Observed

Evidence of Leakage: None Observed

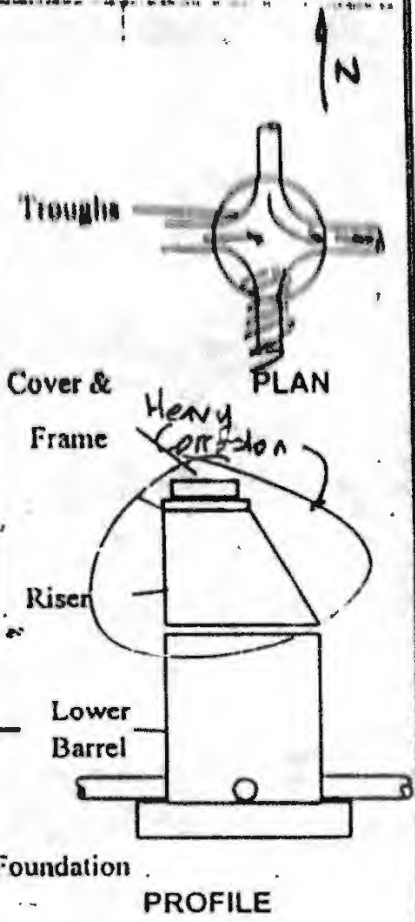
Other Comments Heavy Flow 1/2 to 3/4 .R the Pipe Diameter  
No Protective Coating Inside the Manhole

# MANHOLE INSPECTION FORM

## INDIANWOOD SUBDIVISION, INDIANTOWN FLORIDA

City: Indiantown	Location: Indianwood Sub.	Inspection by: RMS/SJD	
Date: May 5, 1998	Day: Tuesday	Time: 1:00	AM/PM
Location: MH 23	Zone:		
Inspector: RMS/SJD	Weather: Clear & Hot		Temp: 80° F

Item	Construction Material	Condition
COVER	Cast Iron (Vulcan Y-1344-1 Type)	Good
FRAME	Cast Iron	Minor Corrosion
CHIMNEY	Brick and Mortar	Heavy Corrosion
STEPS	None	
CORBEL WORK	None	
RISER WALLS	Concrete	Good
BARREL WALLS	Concrete	Good
BENCH	Concrete	Good
TROUGHS	Concrete	Good



Manhole Cover:  
 No. of Holes 0      Size of Holes: 0

Depth of Manhole: 66" +/-

Depth To High Water Mark: None Observed

Depth To Ground Water: None Observed

Unaccounted Connections: None Observed

Evidence of Leakage: None Observed

Other Comments      Highly Corroded  
Recommend TV Survey, of this Manhole and Next Downstream Manhole

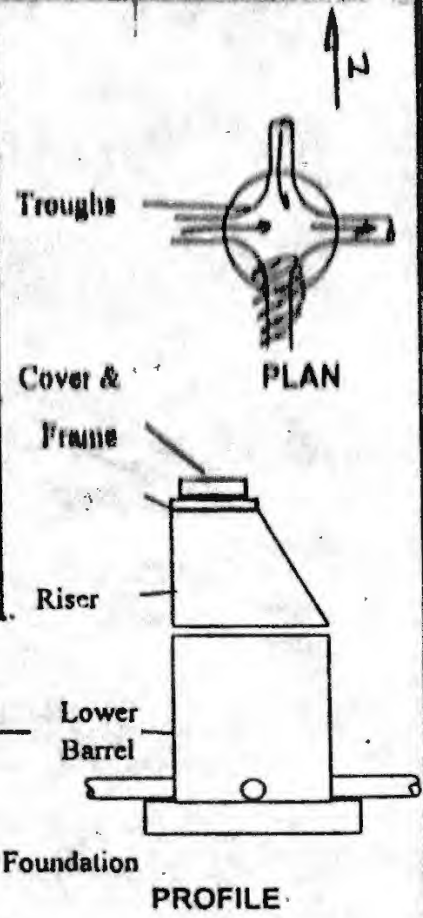
# INDIANWOOD SUBDIVISION, INDIANTOWN FLORIDA

City: Indiantown    Location: Indianwood Sub.    Inspection by: RMS/BJD  
 Date: May 5, 1998    Day: Tuesday    Time: 2:00    AM/PM

Location: MH 12    Zone:

Inspector: RMS/BJD    Weather: Clear & Hot    Temp: 80° F

Item	Construction Material	Condition
COVER	Cast Iron (Vulcan Y-1344-I Type)	Good
FRAME	Cast Iron	Good
CHIMNEY	Brick and Mortar	Good
STEPS	None	
CORBEL WORK	None	
RISER WALLS	Concrete	Good
BARREL WALLS	Concrete	Good
BENCH	Concrete	Good
TROUGHS	Concrete	Good



**Manhole Cover:**  
 No. of Holes: 0    Size of Holes: 0

Depth of Manhole: 129" +/-

Depth To High Water Mark: 1' to 2' +/- From Invert

Depth To Ground Water: None Observed

Unaccounted Connections: None Observed

Evidence of Leakage: None Observed

**Other Comments**  
 \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

# MANHOLE INSPECTION FORM

## INDIANWOOD SUBDIVISION, INDIANTOWN FLORIDA

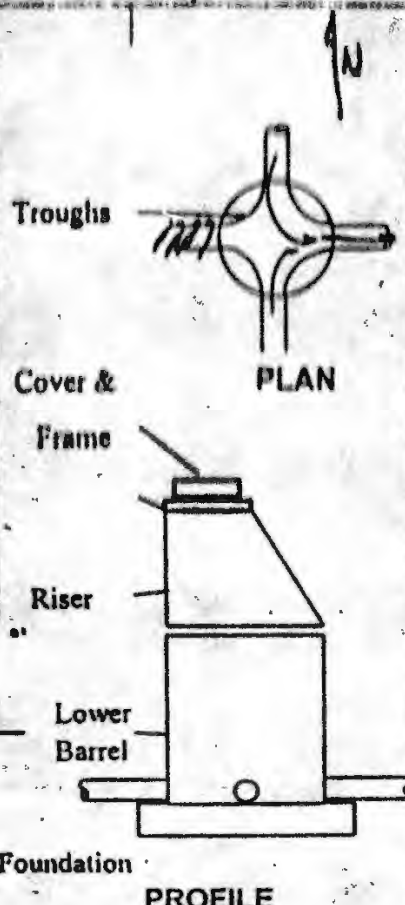
City Indiantown Location Indianwood Sub. Inspection by: RMS/SJD

Date: May 5, 1998 Day: Tuesday Time: 1:00 AM/PM

Location: MH 8 Zone:

Inspector: RMS/SJD Weather: Clear & Hot Temp: 80° F

Item	Construction Material	Condition
COVER	Cast Iron (Vulcan Y-1344-I Type)	Good
FRAME	Cast Iron	Good
CHIMNEY	Brick and Mortar	Good
STEPS	None	
CORBEL WORK	None	
RISER WALLS	Concrete	Good
BARREL WALLS	Concrete	Good
BENCH	Concrete	Good
TROUGHS	Concrete	Good



**Manhole Cover:**

No. of Holes 0 Size of Holes: 0

Depth of Manhole: 95" +/-

Depth To High Water Mark: None Observed

Depth To Ground Water: None Observed

Unaccounted Connections: None Observed

Evidence of Leakage: None Observed

**Other Comments**  
 \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_



# MANHOLE INSPECTION FORM

## INDIANWOOD SUBDIVISION, INDIAN TOWN FLORIDA

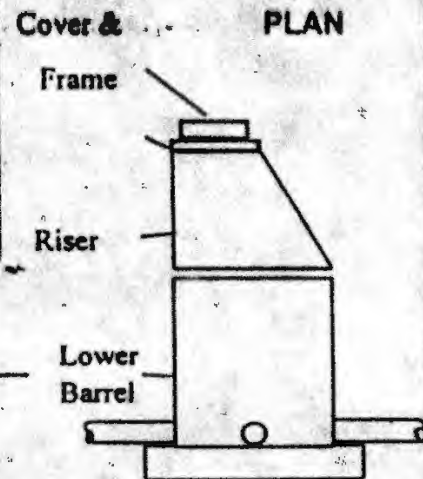
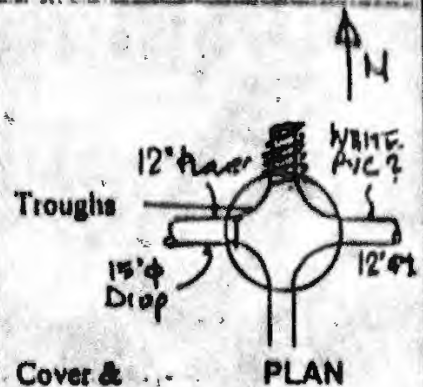
City Indiantown Location Indianwood Sub. Inspection by: RMS/SJD

Date: May 5, 1998 Day: Tuesday Time: 1:00 AM/PM

Location: MH 15 Zone: \_\_\_\_\_

Inspector: RMS/SJD Weather: Clear & Hot Temp: 80° F

Item	Construction Material	Condition
COVER	Cast Iron (Vulcan Y-1344-I Type)	Good
FRAME	Cast Iron	Good
CHIMNEY	Brick and Mortar	Good
STEPS	None	
CORBEL WORK	None	
RISER WALLS	Concrete	Good
BARREL WALLS	Concrete	Good
BENCH	Concrete	Good
TROUGHS	Concrete	Good



**Manhole Cover:**

No. of Holes 0 Size of Holes: 0

Depth of Manhole: 112" +/-

Depth To High Water Mark: 2' to 3' Wave Invert

Depth To Ground Water: None Observed

Unaccounted Connections: None Observed

Evidence of Leakage: None Observed

Other Comments Drop Manhole. No Coating; minor barrel corrosion.

Why Schedule 80 White PVC for Sewer; Why not Green PVC?

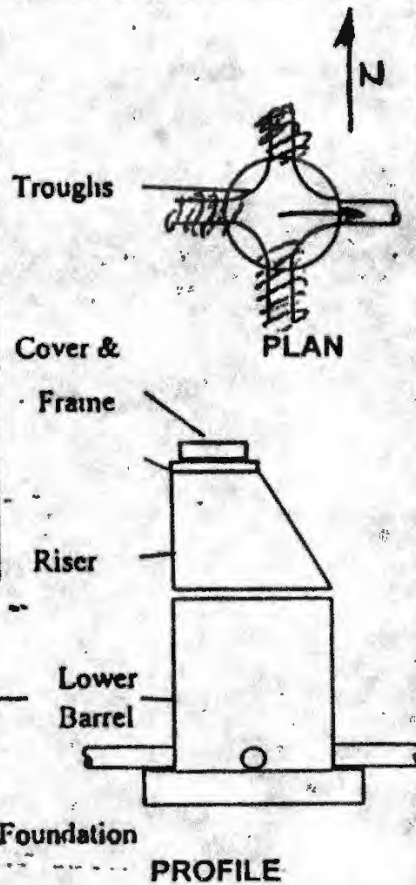
# MANHOLE INSPECTION FORM INDIANWOOD SUBDIVISION, INDIANTOWN FLORIDA

City Indiantown Location Indianwood Sub. Inspection by: RMS/SJD  
 Date: May 5, 1998 Day: Tuesday Time: 1:00 AM/PM

Location: MH 32 Zone: \_\_\_\_\_

Inspector: RMS/SJD Weather: Clear & Hot Temp: 80° F

Item	Construction Material	Condition
COVER	Cast Iron (Vulcan Y-1344-I Type)	Good
FRAME	Cast Iron	Good
CHIMNEY	Brick and Mortar	Good
STEPS	None	
CORBEL WORK	None	
RISER WALLS	Concrete	Good
BARREL WALLS	Concrete	Good
BENCH	Concrete	Good
TROUGHES	Concrete	Good



Manhole Cover:  
 No. of Holes 0 Size of Holes: 0

Depth of Manhole: 45" +/-

Depth To High Water Mark: None Observed

Depth To Ground Water: None Observed

Unaccounted Connections: None Observed

Evidence of Leakage: None Observed

Other Comments Flush Manhole

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# MANHOLE INSPECTION FORM

## INDIANWOOD SUBDIVISION, INDIANTOWN FLORIDA

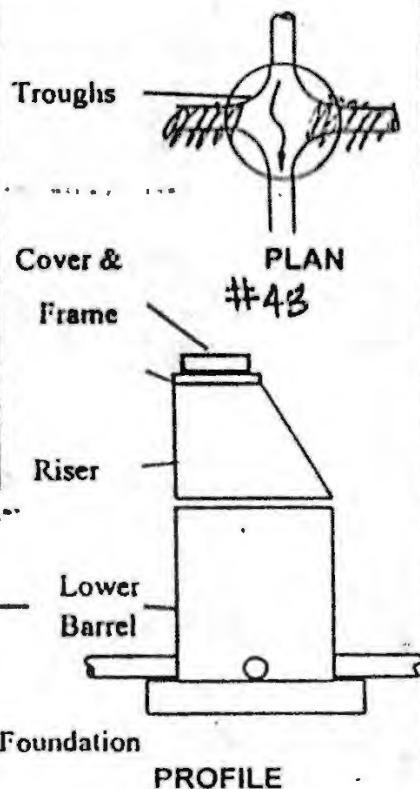
City Indiantown Location Indianwood Sub. Inspection by: RMS/SJD

Date: May 5, 1998 Day: Tuesday Time: 1:00 AM/PM

Location: MH 49 Zone: \_\_\_\_\_

Inspector: RMS/SJD Weather: Clear & Hot Temp: 80° F

Item	Construction Material	Condition
COVER	Cast Iron (Vulcan Y-1344-I Type)	Good
FRAME	Cast Iron	Good
CHIMNEY	Brick and Mortar	Good
STEPS	None	
CORBEL WORK	None	
RISER WALLS	Concrete	Good
BARREL WALLS	Concrete	Good
BENCH	Concrete	Good
TROUGHS	Concrete	Good



Manhole Cover:

No. of Holes 0 Size of Holes: 0

Depth of Manhole: 79" +/-

Depth To High Water Mark: 2' to 3' Above Invert

Depth To Ground Water: None Observed

Unaccounted Connections: None Observed

Evidence of Leakage: None Observed

Other Comments Severe Inflow From Rim; Need Storm Water Type Covers

# MANHOLE INSPECTION FORM

## INDIANWOOD SUBDIVISION, INDIANTOWN FLORIDA

City Indiantown Location Indianwood Sub. Inspection by: RMS/SJD

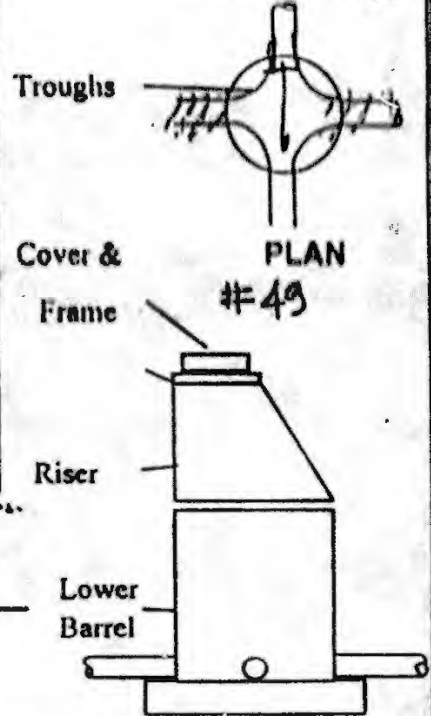
Date: May 5, 1998 Day: Tuesday Time: 1:00 AM/PM

Location: MH 50 Zone:

Inspector: RMS/SJD Weather: Clear & Hot Temp: 80° F

Item	Construction Material	Condition
COVER	Cast Iron (Vulcan Y-1344-I Type)	Good
FRAME	Cast Iron	Good
CHIMNEY	Brick and Mortar	Good
STEPS	None	
CORBEL WORK	None	
RISER WALLS	Concrete	Good
BARREL WALLS	Concrete	Good
BENCH	Concrete	Good
TROUGHS	Concrete	Good

*Accumulation of Calcium on U.S.P.*



**Manhole Cover:**

No. of Holes 0 Size of Hole 0

Depth of Manhole: 69" +/-

Depth To High Water Mark: None Observed

Depth To Ground Water: None Observed

Unaccounted Connections: None Observed

Evidence of Leakage: None Observed

Other Comments Severe Inflow From Rim

**Indiantown Company/Indianwood  
Indiantown, Florida**

**Indianwood Subdivision Development,  
Observation And Evaluation Of Water And Sewer Facilities**

**Appendix B**

**Water System Evaluation Data Sheets**

**May 1998**

**Prepared By  
Lincahl, Browning, Ferrari & Hellstrom Inc.  
2400 SE Monterey Rd., Suite 300  
Stuart, FL 34996**

**Indiantown Company/Indianwood  
Indiantown, Florida**

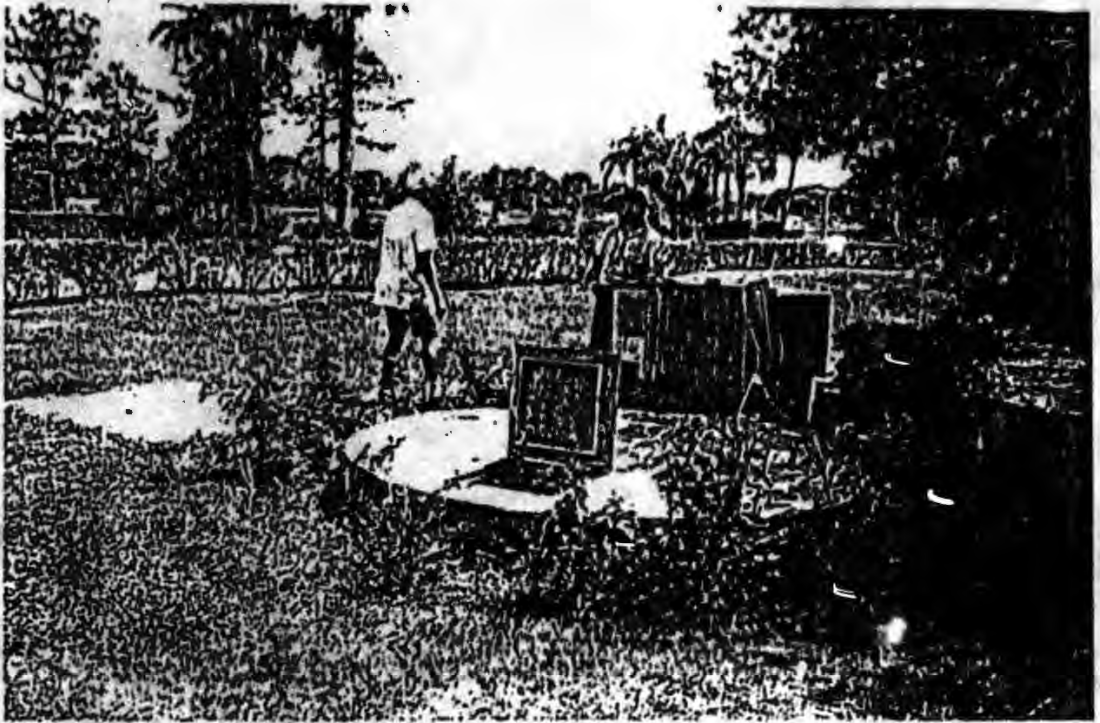
**Indianwood Subdivision Development,  
Observation And Evaluation Of Water And Sewer Facilities**

**Appendix C**

**Indianwood Record Data**

**May 1998**

**Prepared By  
Lindahl, Browning, Ferrari & Hellstrom Inc.  
2400 SE Monterey Rd., Suite 300  
Stuart, FL 34996**

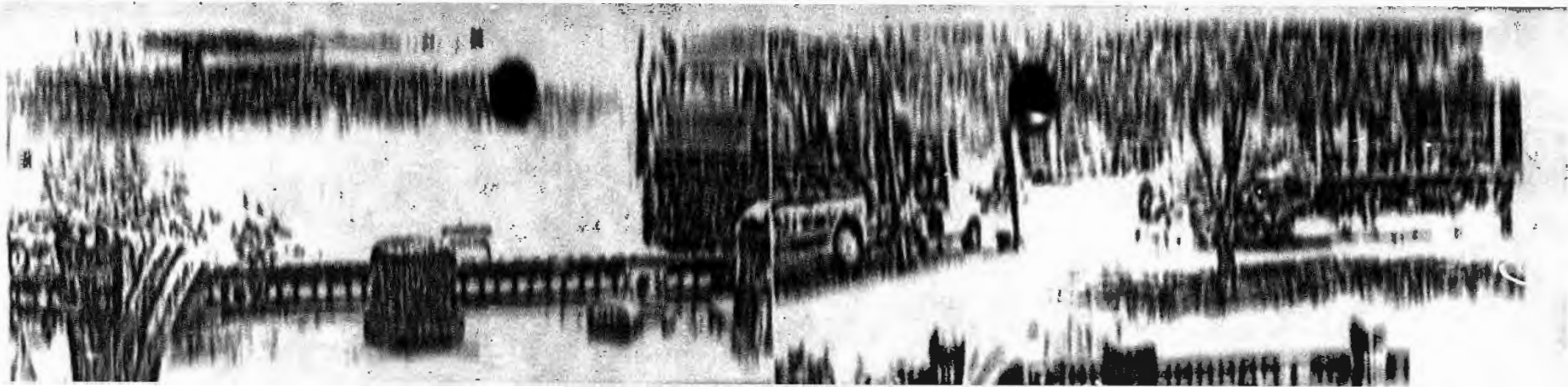


**LIFT STATION 1**

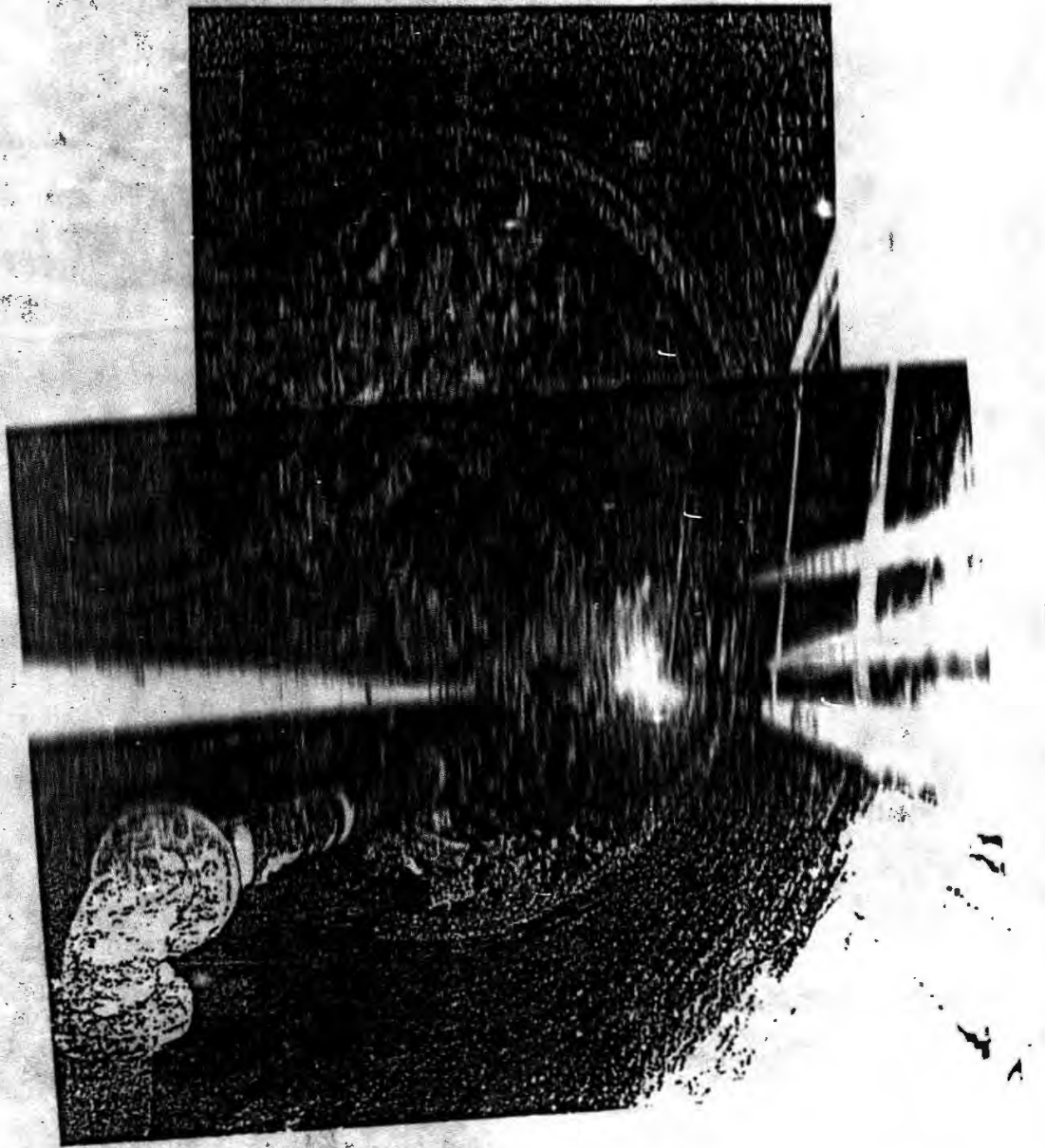


LIFT STATION 2





**LIFT STATION 2  
CONTROL PANEL**



**TYPICAL LIFT STATION  
WET WELL**

January 12, 1968

Residents of Indiantown  
Indiantown, Florida 34908

Dear Friends and Valued Customers:

It is with deep regret that I must inform you that the Indiantown Company as governed by the Public Service Commission, can no longer make repairs to lines within the Indiantown Substation. The reason for this is that we do not own these lines and the Indiantown Development Company has no other source to approach the Indiantown Company to work on these lines privately owned lines.

The Indiantown Development Company and the Indiantown Company are presently in contact to determine the possibility of the Indiantown Company purchasing the lines. It is possible that the Indiantown Company will purchase the lines and we will be able to make repairs to these lines.

We sincerely regret that if you are having trouble with your power lines, you will have to contact the Indiantown Development Company. We will be glad to refer you to them if you have any questions. We are sorry that we cannot do more for you at this time.

We hope that this will not cause you any inconvenience. Please note that this does not affect our providing service to your area and other services.

If we can be of further help to you, the residents of Indiantown, please feel free to contact Jim Hartzel at the Indiantown Company.

Sincerely,

INDIANTOWN COMPANY, INC.

By: William W. Hannah  
William W. Hannah, Manager

**PLANT OFFICE:**  
15925 SW Warfield Blvd.  
P. O. Box 397  
Indiantown, FL 34956  
561-597-2121



**PLANT OFFICE:**  
15851 SW Farms Road  
P. O. Box 397  
Indiantown, FL 34956  
561-597-2122  
Fax 561-597-3067

## INDIANTOWN COMPANY, INC.

*"The Community Planned for Pleasant Living"*

February 3, 1999

Indianwood Development Corp.  
P. O. Box 336  
Indiantown, Florida 34956

Attention: Richard Sills

Dear Mr. Sills:

This letter is to advise you that a 6" gate valve located on the corner of Rake Drive and Indianwood Circle is leaking and must be repaired immediately. Without the repair, water service to the owners/tenants down from the valve are in danger of being abruptly terminated.

We have estimated the cost of repair for the labor and materials to be \$2,000. The company will immediately begin repair to the valve upon receipt of a \$1,000 down payment and an agreement that you will pay the final payment within fifteen (15) days after the final billing. We need your response as soon as possible, certainly within 24 hours or less.

I have discussed this matter with our attorney and he is prepared, if necessary, to confirm in writing that your payment is without prejudice to your position in the current lawsuit which was filed by Indianwood against Indiantown Company.

Please respond immediately.

Sincerely,

INDIANTOWN COMPANY, INC.

By:

  
William W. Hannan, Manager

WWH:js

**INDIANWOOD DEVELOPMENT CORP.  
P.O. BOX 335  
INDIANTOWN, FL 34956-0335  
(887) 887-3781**

**VIA FAX AND MAIL (887-887-3781) PAGES INCLUDING THIS LETTER: 1**

**February 6, 1999**

**William W. Hannah, Manager  
Indiantown Company, Inc.  
PO Box 397  
Indiantown, FL 34956**

**Dear Mr. Hannah:**

Receipt is acknowledged of your certified letter which although dated February 3, 1999, apparently was not sent until February 5, and not received until February 6, 1999.

Our understanding is that the action to which you refer on the cover of said letter and individual copies is a claim for which Indiantown Company should and therefore obligated leaving no ambiguity and presently ongoing matter.

In our opinion, your letter is nothing more than a ploy and an attempt to gain some type of leverage or advantage in the dispute which we are having with you and which is presently the subject of a lawsuit presently pending in Martin County Circuit Court.

As you well know, Indiantown Company as a licensed and authorized utility is responsible for making all repairs to the water and sewer infrastructure and, in fact, has previously done so time and time again in accordance with such responsibility. Only recently, when the ownership question arose, did Indiantown Company, as such utility, refuse to honor its repair obligations. Your present failure, and your attempt to exact monies from us is outrageous and contrary to your legal obligations.

We insist that you immediately complete the subject repair and that you continue to make all repairs as may from time to time be needed within the Park.

We repeat our previous advice that in the event of any loss or damage to person or property arising from Indiantown Company's failure to make good and timely repair to the water/waste-water system at the Indianwood Mobile Home Park, that Indianwood will seek to recover all such loss and damages from the Indiantown Company and all others who may be legally responsible. It is obvious that your present refusal to make such repairs is willful.

Sincerely yours,

  
Richard L. Sills  
General Manager